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February 28, 2003

Attached is the Department of Community Services and Development's sixth quarterly *Senate Bill 5X, Legislative Report for the California Low-Income Home Energy Assistance Program (CAL LIHEAP)* which is due March 1, 2003. This report covers the periods of June 1, 2001 through December 31, 2002. There have been no major updates/additions made to this report from the fifth quarterly report, which encompassed June 1, 2001 to September 30, 2002.

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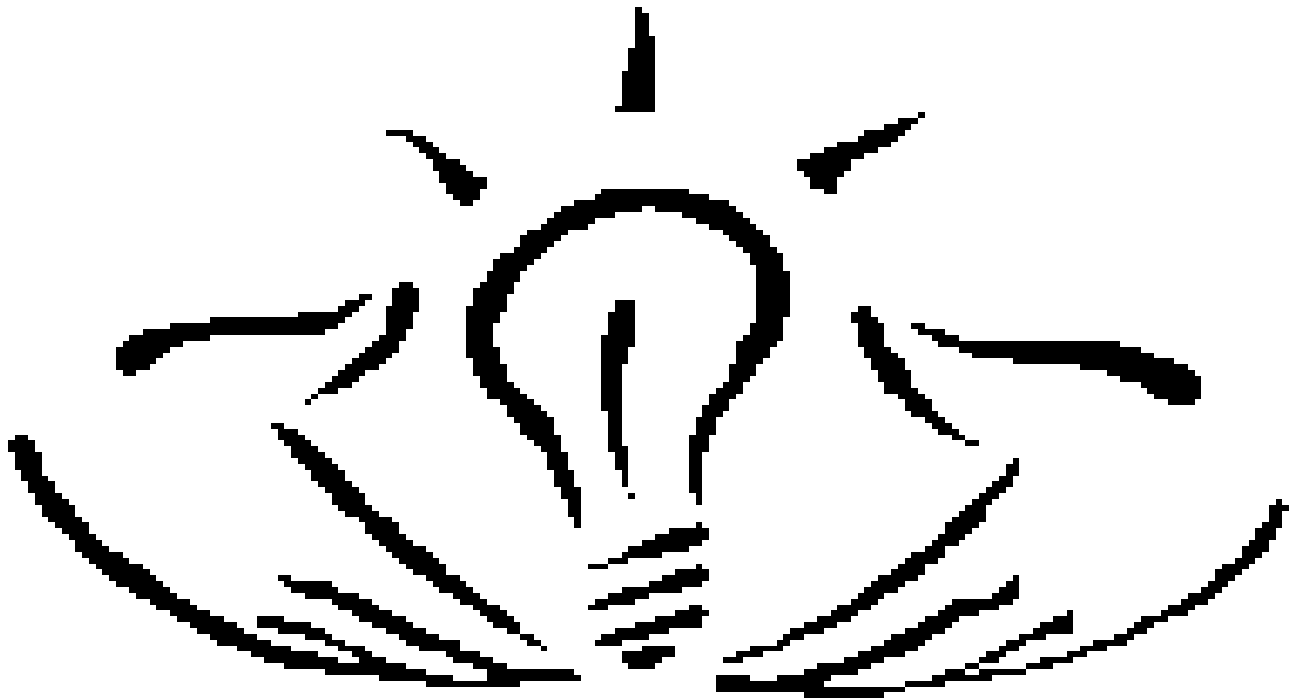
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TIMOTHY M. DAYONOT  
Director



**Senate Bill 5X**  
**Legislative Report**

**California Low-Income Home Energy Assistance Program  
(CAL LIHEAP)**



**Department of Community Services and Development**

**March 2003**

## **Executive Summary**

Governor Davis signed Senate Bill 5X (SB 5X) in April 2001, which appropriated \$120 million to the Department of Community Services and Development (CSD) for the purposes of supplementing the federal Low-Income Home Energy Assistance Program (LIHEAP) and implementing the California Low-Income Home Energy Assistance Program (CAL LIHEAP). The goals of this program are to increase energy conservation, reduce the demand for energy services in low-income households (at or below 250% of the federal poverty guidelines) and assure that the most vulnerable households can cope with high energy costs.

CSD initially distributed \$30 million of the \$120 million to CSD's existing network of LIHEAP Service Providers to ensure that funds were available for immediate provision of services during the peak energy demand summer months of June, July and August 2001.

In November 2001, due to the State economy slow down and the decline in revenue in the State General Fund the Administration proposed a reduction of \$53.7 million to the CAL LIHEAP Program. Thirty million of the proposed \$53.7 million reduction was restored to the CAL LIHEAP Program in February 2002. This report covers the periods of June 2001 through December 2002.

CSD has distributed to date \$92,674,463 to its Local Service Providers. The following data represents the accomplishments of the program to date:

- A total of 149,833 low-income households have been assisted.
- 31,506 dwellings have been weatherized.
- More than 244,500 weatherization measures have been installed, including, but not limited to the replacement of inefficient refrigerators, and the installation of compact fluorescent lamps and electric water heaters.
- More than 13 million kilowatt-hours have been saved.
- 42,112 households in a crisis situation (e.g. utility shut-off notice) have received Energy Crisis Intervention Services.
- 76,215 households experiencing difficulty in paying their utility bill have received Cash Assistance Program payments.
- Over 184,251 vulnerable population individuals have been served; including the elderly, disabled, limited-English speaking, very young children and migrant and seasonal farmworkers.

## Table of Contents

Executive Summary .....	i
Background .....	1
Program Components .....	1
Program Development and Design .....	2
Funding Allocation, Distribution and Expenditures .....	3
Program Activities .....	6
Estimated Impact of Funds on Energy Demand .....	7
Program Accomplishments .....	29
Estimated Unmet Need .....	31
Automated Data Collection and Reporting .....	32
Conclusion .....	33

### Appendices:

Appendix A: Map of California Energy Commission Forecasting Climate Zones and  
CAL LIHEAP Providers Forecasting Climate Zones

Appendix B: Per Measure Energy Impact for PG&E, SCE, SCGC and SDG&E

Appendix C: Number of Homes Weatherized and Estimated Yearly Energy Savings  
per CAL LIHEAP Provider



## California Low-Income Home Energy Assistance Program (CAL LIHEAP) Report to the Legislature March 2003



### Background

In April 2001, Governor Davis signed Senate Bill 5X (SB 5X) which authorized the Department of Community Services and Development (CSD) to receive \$120 million from the General Fund for the purposes of supplementing the federal Low-Income Home Energy Assistance Program (LIHEAP) and to implement a new California Low-Income Home Energy Assistance Program (CAL LIHEAP). The goals of this program are to increase energy conservation, reduce the demand for energy services in low-income households and assure that the most vulnerable households cope with high energy costs.

SB 5X established the CAL LIHEAP Program components of Weatherization and Conservation Services (WX), Energy Crisis Intervention Services (ECIS), and Cash Assistance Payments (CAP). Included in the bill was Governor Davis' line item veto message, which directed CSD to set aside \$20 million of the \$120 million appropriation for distribution only to local service providers located in areas that are serviced by Locally Owned Public Utilities (LOPU's).

Due to the decline in revenue in the State General Fund, in November 2001 the Administration proposed a \$53.7 million reduction of CSD's CAL LIHEAP allocation. In February 2002, \$30 million was restored to the ECIS and CAP components only.



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### Program Components

#### WX

The WX component consists of services to improve the energy efficiency of homes, including the installation of attic insulation, weatherstripping, minor housing repairs, and related energy conservation measures. The weatherization program encompasses a wide range of electric baseload, mandatory and optional measures identified to have the greatest impact on energy reduction. Weatherization services assist in reducing the demand for energy and continue to provide energy savings in the future.

#### CAP

The CAP component of the program consists of a gas and electric bill payment made on behalf of the client to the utility company to assist with the eligible households heating and cooling costs. This program also includes wood, propane and oil payments.

## **ECIS**

The ECIS component of the program consists of gas and electric bill payments, wood, propane and oil payments, and furnace repair and replacement on behalf of those households identified in a crisis situation. An ECIS payment is made when an applicant receives a 24 or 48-hour disconnection notice or other utility service disconnection notice that would imply a life threatening and/or emergency situation; or the applicant's utility services have been terminated; or the applicant requires assistance with establishing a new energy account.

## **LOPU**

The funds allocated for LOPU are to be used for energy bill payments only. These funds are set aside for the payment of energy bills only for clients whose energy supplier is identified in the CAL LIHEAP Contract as a LOPU in the contractor's service area.



## **Program Development and Design**

In designing and developing CAL LIHEAP, CSD mirrored the federal LIHEAP program with some added flexibility not allowable under the federal program. SB 5X provides that eligibility for CAL LIHEAP services includes households with incomes that do not exceed 250% of the federal poverty level (FPL) for this state. The 250% income maximum enabled CSD to serve a larger population of households typically categorized as the "working poor." Those households do not qualify for assistance under the federal LIHEAP income guidelines of 60% of the state median income (SMI) (which equates approximately to 200% of the federal poverty level).

Listed below is a chart depicting the income differences in the CAL LIHEAP and federal LIHEAP Programs:

<b>Number in Household</b>	<b>CAL LIHEAP 250% FPL Annual Income</b>	<b>Number in Household</b>	<b>LIHEAP 60% SMI Annual Income</b>
1	\$21,475	1	\$17,225
2	\$29,025	2	\$22,525
3	\$36,575	3	\$27,825
4	\$44,125	4	\$33,125
5	\$51,675	5	\$38,425
6	\$59,225	6	\$43,725
7	\$66,775	7	\$44,719
8	\$74,325	8	\$45,713

Secondly, to increase the availability and impact of ECIS and CAP each service provider was asked to complete a local plan to determine the amount of funds to be allocated within the ECIS and CAP components of the contract, based on local determination and identified needs of the client population in their service areas. Additionally, the service providers were granted the flexibility of selecting the maximum benefit payable and the number of payments that each eligible household may receive. This allowed the service providers to meet the needs of those clients that were faced with exceptionally high utility bills and assured the household would receive sufficient assistance to alleviate their energy concerns.

Thirdly, to meet the intent of SB 5X, to immediately reduce energy consumption, CSD designed the WX component of CAL LIHEAP so that Electric Base Load (EBL) Measures would be the first priority for installation. EBL measures included:



Refrigerator Replacement,



Electric Water Heater Repair/Replacement,



Microwave Oven Replacement/Installation



Thread-based Compact Fluorescent Lamps, and



Hard-Wired Compact Fluorescent Lamps.



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## **Funding Allocation, Distribution and Expenditures**

To ensure the timely implementation of services and to begin the reduction of energy usage immediately, CSD distributed funds through our existing LIHEAP Local Service Providers comprised of forty-five local governmental and nonprofit organizations and two (2) Native American Indian providers that provide services in all fifty-eight counties of California. The funds were allocated and distributed in phases as follows:

Phase 1A – Initially, \$29,100,000 million was distributed to provide program services based on a three-factor-formula consisting of low-income population, climate and energy costs. The original contract term was June 1, 2001 through August 31, 2001 to ensure services were implemented during the peak summer months of June, July, and August.

Phase 1B– Less than six weeks into Phase 1A several CAL LIHEAP Local Service Providers notified CSD they had totally expended the initial cash assistance funds. To prevent a gap in services these agencies received a doubling of their initial Phase 1A allocation. Phase 1B total distribution was \$12,787,932.

Phase 2A – The original contract term was extended for all service providers from August 31, 2001 to November 30, 2001. CAL LIHEAP funds were allocated to

those agencies that had not previously received the doubling of their Phase 1A allocation. Total Phase 2A allocations were \$15,768,502.

Phase 2B – Due to the high demand for assistance with utility payments CSD received additional requests from service providers that had totally expended their Phase 1A, 1B, and 2A cash assistance funds. These agencies had clients but no funds to provide services. To prevent a gap in service these agencies were allocated an additional 50% of their initial Phase 1A allocation. Total Phase 2B allocations were \$4,156,823.

Phase 3 Extension – The contract term for all CAL LIHEAP contracts was extended to December 31, 2002.

Native American Indian Set-Aside: \$840,000 has been allocated for a Native American set-a-side.

SB 5X characterizes CAL LIHEAP as supplementing federal LIHEAP, and under federal LIHEAP, California Indian Tribes are provided a 0.7% set-aside from California's annual federal LIHEAP gross allotment.

Although not specifically identified as a vulnerable population in SB 5X, California Indian Tribes are recognized in Section 5(j) of SB 5X as a group that warrants special rules for access to specific SB 5X funds and various outreach requirements. It is CSD's belief that the insertion of the above-described provisions was a signal by the Legislature that California Indian Tribes should not be overlooked during the energy crisis.

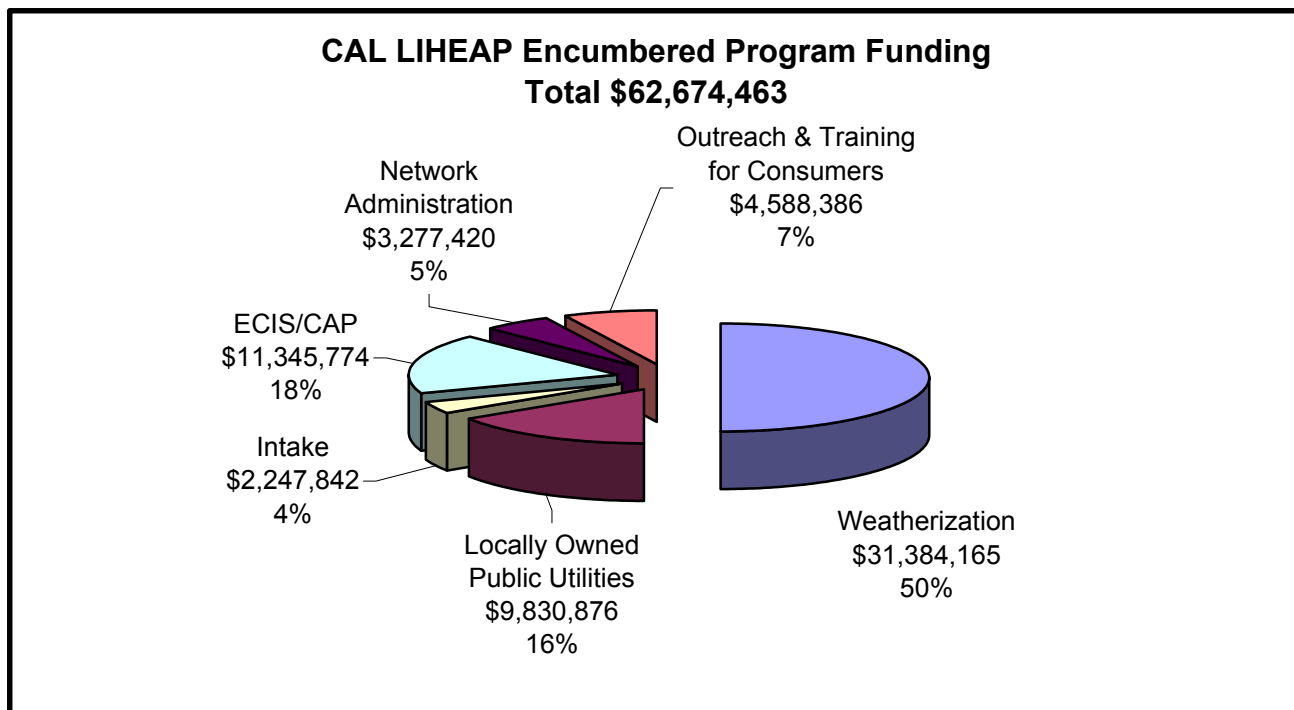
Therefore, because of the existing federal LIHEAP practice to annually recognize the needs of this disadvantaged group, and the Section 5(j) language described above, CSD decided to mirror the federal program and award 0.7% (\$840,000) of the total CAL LIHEAP funding to California Indian Tribes.

The Native American Indian contracts were distributed in January 2002.

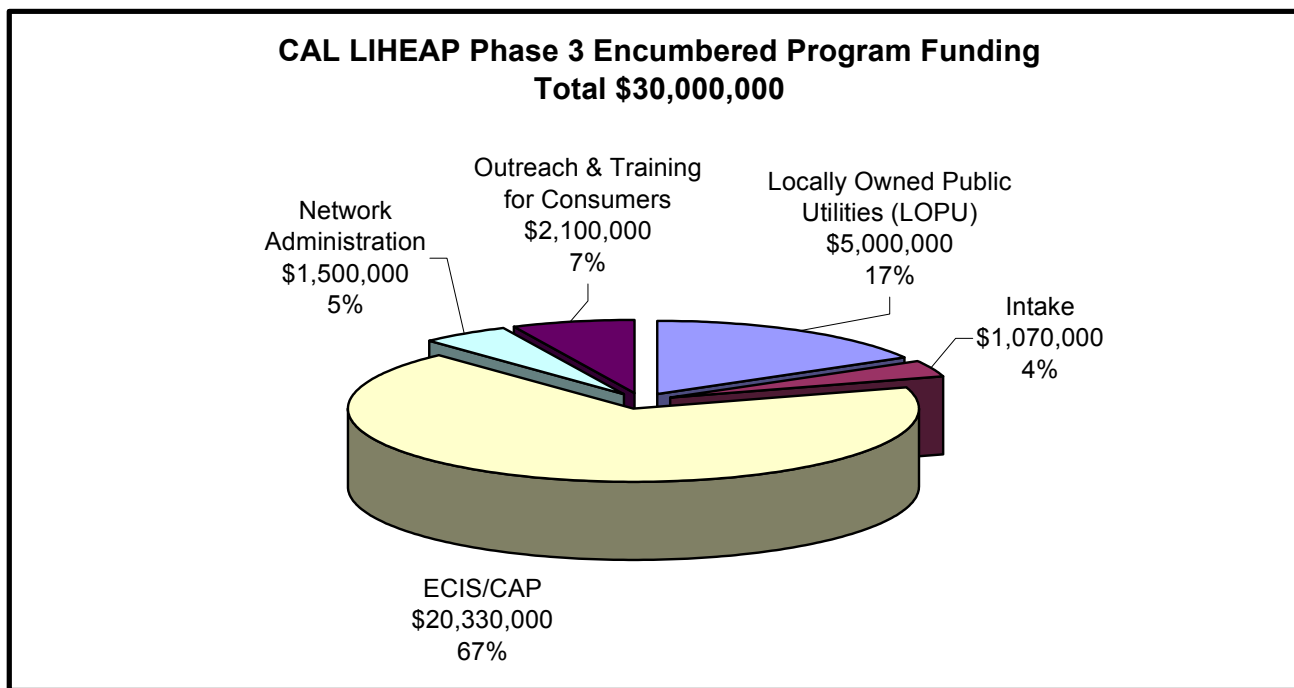
Phase 3 Augmentation – On February 2, 2002, Governor Davis signed legislation that restored \$30 million dollars to CAL LIHEAP for the purpose of CAP, ECIS and LOPU payments. The \$30 million must be spent by June 30, 2002.

As shown in the following two pie charts, from June 1, 2001 through December 31, 2002, CSD has allocated and encumbered a total of \$92,674,463 in contracts to CAL LIHEAP Local Service Providers. Chart 1 illustrates the breakdown of funds by component for phases 1, 2 including the Native American Set-Aside. Chart 2 illustrates the distribution of the \$30 million, which was restored in February 2002. As shown, the \$30 million is to be allocated to the ECIS, CAP and LOPU components only.





**Chart 1: Encumbered Funding--Phase 1, 2 and Native American Set-Aside**



**Chart 2: Encumbered Funding Phase 3--Augmentation**



## **Program Activities**

### **Outreach and Assistance to Vulnerable Populations**

Energy assistance is important to all recipients, but with the energy crisis California faces, the vulnerable population groups are most adversely impacted. Senate Bill 5X identified the vulnerable populations to be served: elderly persons, disabled persons, limited-English-speaking persons, migrant and seasonal farmworkers, and households with very young children. Additionally, Senate Bill 5X requires CSD to ensure that vulnerable populations have comparable access to the energy programs. CAL LIHEAP Local Service Providers are required to conduct special outreach to vulnerable households, including outreach to senior centers, independent living centers, welfare departments, regional centers, and to migrant and seasonal farmworkers. Outreach activities included: flyers, brochures, outreach mailers to target populations, and/or public announcements.

### **Intake**

CAL LIHEAP Local Service Providers are required to conduct client intake and assessment for all persons seeking CAL LIHEAP services. Prior to the intake process, a pre-screening of customers, either via the telephone or in person, occurs to determine eligibility. After eligibility is determined applicable documentation needed to assist the client is collected. Once the documentation is verified and the household has been determined to be eligible for assistance, the application is forwarded to CSD for payment. The intake process for CAP and ECIS is completed through an automated system.

### **Conservation Services (Training for Consumers)**

SB 5X requires that CAL LIHEAP Local Service Providers provide all recipients of energy assistance with energy conservation education information and budget counseling that includes the following:

- Information regarding the importance of applying for energy assistance prior to being in an arrearage situation and information concerning various utility company budget payment plan(s).
- Written information that describes energy-saving behavioral adjustments that will decrease the energy consumption of the household.
- Resource information, referrals to other energy programs, and family and budget counseling in order to assist clients in achieving self-sufficiency.
- A description of the benefits that the client can expect to receive as a result of the weatherization measures and the purposes and functions of each measure installed in the dwelling.



## **Estimated Impact of Funds on Energy Demand**

### **Reporting Requirements**

In an effort to quantify the impact CAL LIHEAP WX services (installation of measures) have on the reduction of low-income customer energy demand, CSD contracted with Richard Heath and Associates (RHA). CSD with the aid of RHA and in consultation with the CAL LIHEAP Local Service Providers developed programmatic guidelines and protocols including policies and procedures, material and installation standards and a comprehensive data collection and analysis tool to analyze the impact of CAL LIHEAP services on energy demand.

To assist in gathering necessary data CAL LIHEAP Local Service Providers were provided data collection and reporting tools to capture and report monthly per-dwelling client energy usage demographics, and information on weatherization activities completed using CAL LIHEAP funds. Data for the months of June 2001 through December 2002 was summarized and energy savings calculations estimated using existing models developed by California investor-owned utilities and the California Energy Commission (CEC).

The following analysis is part of a larger report prepared by RHA for CSD. This report presents the analysis and projected energy savings derived with data collected from the forty-five service providers and two Native American Indian providers participating in the CAL LIHEAP program. Appendix C shows the number of dwellings weatherized and the kWh and therms saved by each local service provider.

The CAL LIHEAP Local Service Providers have put significant effort into reporting concurrently to CSD and RHA. However, in reconciling the numbers of the dwellings weatherized and the measures installed reported to CSD and to RHA, there are differences. RHA incorporates an internal deadline after receipt of the data from the local service providers to allow sufficient time to conduct an analysis of the data and calculate the energy savings. When questions arise or items require clarification, the energy savings data from those measures will be incorporated in the subsequent report. Therefore, program accomplishments reported in the Executive Summary and on page 29 reconcile to data reported to CSD and will not match the numbers reported in the tables and graphs created by RHA on pages 10-27.

## **Installation of Measures**

To rapidly and effectively increase energy conservation and reduce demand for energy, CSD developed and implemented the CAL LIHEAP Weatherization Program, which focused its efforts towards this goal. This energy efficiency program embraced measures that have the greatest impact on peak demand reduction. The five (5) measures listed below were identified and given the highest priority for installation as they afforded the greatest potential for energy usage reduction:

- **Refrigerator Replacement**
- **Electric Water Heater Repair/Replacement**
- **Microwave Oven Replacement/Installation**
- **Thread-based Compact Fluorescent Lamps**
- **Hard-Wired Compact Fluorescent Lamps**

This group of measures was entitled “Electric Base Load Measures.” The backbone of a successful installation program is a set of up-to-date material and installation standards, as there exists a direct correlation between correct installation and measure effectiveness. To this end CSD developed and distributed, to its CAL LIHEAP Local Service Providers, “Electric Base Load Measures Material and Installation Standards” consistent with 1) new statewide Low Income Energy Efficiency (LIEE) Program standards, 2) newly-updated Title 24 Residential Building Energy Efficiency Standards, and 3) current California building codes, mechanical codes, and electrical codes.

Likewise, fundamental to a successful retrofit installation program are technical and programmatic policies and procedures. Measure-specific policies and procedures for the five (5) Electric Base Load Measures were developed and disseminated to CAL LIHEAP Local Service Providers to supplement CSD’s administrative policies.

## **Assumptions**

To maintain consistency between all statewide weatherization programs and utility low-income energy efficient programs, a review of current data collection strategies, reporting formats, and assumptions used by California investor-owned utilities was performed. The information gathered was incorporated into CSD’s data collection and reporting protocol. Data for the months of June 2001 through December 2002 was summarized and energy savings calculations estimated using existing models developed by California investor-owned utilities and the California Energy Commission (CEC).

Since CAL LIHEAP is a statewide program, its service territory traverses multiple climate zones and includes customers from the four major investor-owned utilities. In order to apply the per measure energy impacts developed in the CEC Statewide 2001 Database for Energy Efficiency Resources (DEER) Update Study, each CAL LIHEAP Local Service Provider was assigned a CEC Forecasting Climate Zone that correlated with the utility in whose service area the agency performs weatherization services. It should be noted that the CEC Forecasting Climate Zones used in the 2001 DEER Update Study are different than the Title-24 climate zones. Appendix A contains a map of California Energy

Commission Forecasting Climate Zones and a list of the 45 Service Providers with their corresponding CEC Forecasting Climate Zone.

Included in Appendix B is a list of weatherization measures currently being installed using CAL LIHEAP funds along with their projected yearly energy impact in kilowatt-hours (kWh) and therms. The per measure energy impacts were taken from the "Joint Utility Low Income Energy Efficiency Program Costs and Bill Savings Standardization Report," February 1, 2001, the "2001 DEER Update Study," and calculated using information from Pacific Gas and Electric (PG&E) Company's most recent "Residential Energy Savings Report."

The list is grouped into three categories: Weatherization Activities, Mandatory Measures (including the "Electric Base Load Measures"), and Optional Measures. Under Optional Measures only the top five (5) most frequently installed measures were included, the remainder of the Optional Measures were grouped under Other Optional Measures. These include a miscellaneous group of measures installed by the CAL LIHEAP Service Providers in the months of June 2001 through December 2002.

The list also contains weatherization activities and measures, which are performed as either a prerequisite to installing a weatherization measure or to mitigate a potential health and safety hazard. The four (4) weatherization activities (see Appendix B for list of activities) and the following three (3) measures have little or no energy savings associated with them: Combustion Appliance Safety Hazard Repair/Replacement, Attic Venting and Electric Water Heater Repair.

### **Data Collection**

To assist in gathering necessary data CAL LIHEAP Service Providers were supplied data collection and reporting tools to capture and report monthly per-dwelling client energy usage demographics, and information on weatherization activities completed using CAL LIHEAP funds. These monthly weatherization activity reports are being collected and compiled into a database by RHA.

To-date 748 data collection reports for the months of June 2001 through December 2002 have been analyzed; these reports comprise a total of 30,273 weatherized low-income dwellings consisting of Single Family, Mobile, and Multifamily homes, and Licensed Community Care Facilities. Results of the analysis are presented in the following sections. See Appendix C for a list of CAL LIHEAP Service Providers along with the number of dwellings weatherized by each provider.

## **Measures Installed**

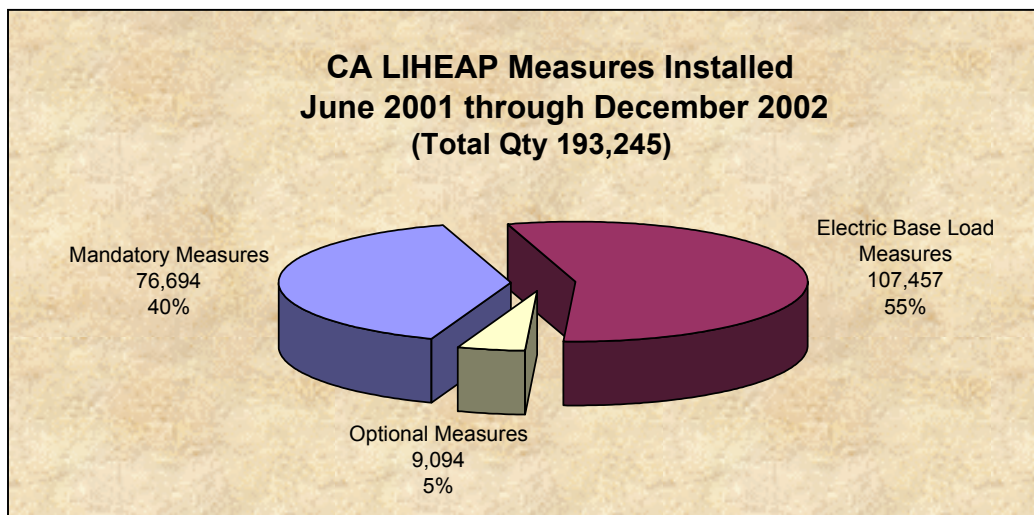
This section provides a summary of CAL LIHEAP weatherization measures installed in the months of June 2001 through December 2002. Only those measures, which were established to have an energy impact, are included in the table below (unit of measure is per dwelling unless otherwise specified).

### **CAL LIHEAP Wx Measures Installed-June 2001 through December 2002**

<b>MANDATORY MEASURES*</b>		<b>Quantity</b>
1	Glass Replacement	2,240
2	Duct and Register Repair/Replacement	584
3	Minor Envelope Repair	8,587
4	Evap. Cooler/Air Conditioner Vent Cover (Inside)	938
5	a. Ceiling Insulation R11	148
	c. Ceiling Insulation R19	328
	e. Ceiling Insulation R30	315
	f. Ceiling Insulation R38	166
6	Low-Flow Showerhead, per device	9,727
7	Hot Water Faucet Restrictor, per device	17,956
8	Door Weatherstripping, per door	13,702
9	Water Heater Blanket	1,837
10	Water Heater Pipe Wrap	814
11	Duct Wrap	24
12	Switch/Outlet Gaskets	8,527
13	Caulking	7,923
14	Other Weatherstripping	2,878
<b>Total Mandatory Measures</b>		<b>76,694</b>
15	<b>Electric Base Load Measures</b>	
	a. Refrigerator Replacement	16,563
	b. Electric Water Heater Repair/Replacement	234
	c. Microwave Oven	17,869
	d. Thread-based Compact Fluorescent Lamps	71,708
	e. Hard-Wired Compact Fluorescent Lamps	1,083
<b>Total Electric Base Load Measures</b>		<b>107,457</b>
<b>OPTIONAL MEASURES</b>		
1	Ceiling Fans	2,424
2	Evaporative Cooler Repair	86
3	Filter Replacement for A/C or Furnace, Filters Only	2,050
4	Filter Replacement for A/C or Furnace, Filters + Replacement Signal	641
5	Setback Thermostat	3,078
6	Other Optional Measures	815
<b>Total Optional &amp; Other Optional Measures</b>		<b>9,094</b>
<b>TOTAL CAL LIHEAP Wx MEASURES INSTALLED</b>		<b>193,245</b>

**Table 1: CAL LIHEAP Weatherization Measures Installed**

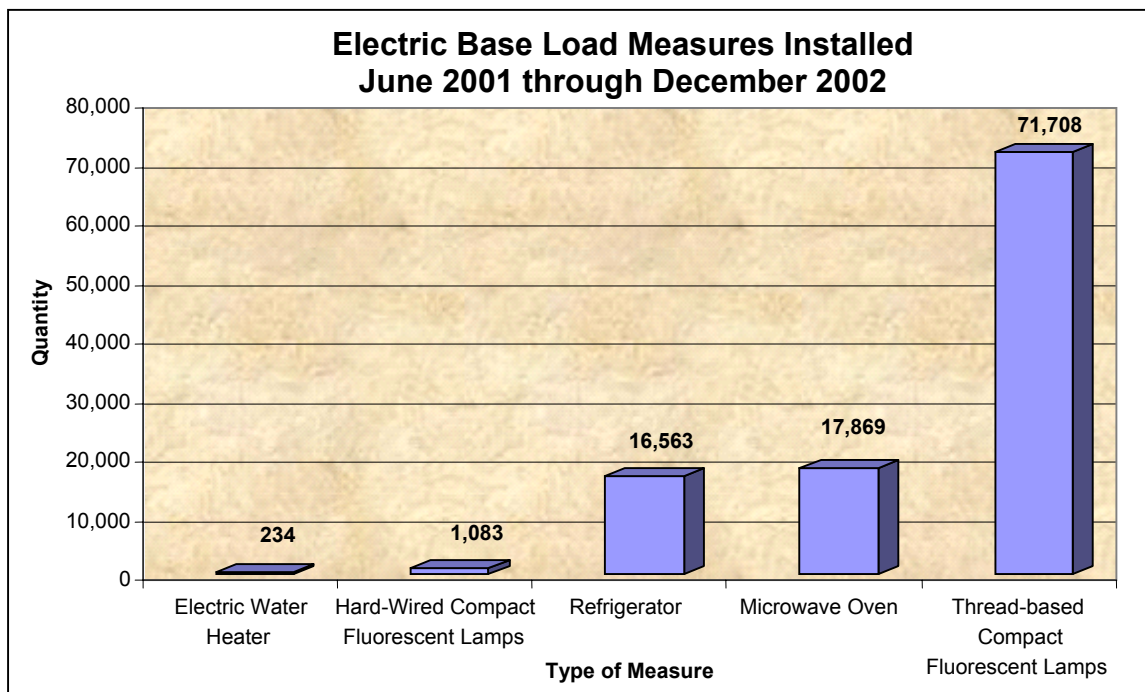
Included in Figure 1 below is a summary of the measures installed grouped in the following three categories: 1) Mandatory Measures, 2) Electric Base Load Measures, and 3) Optional Measures.



**Figure 1: CAL LIHEAP Measures Installed**

The Electric Base Load Measures was the largest group of measures installed by the CAL LIHEAP Service Providers. Over half (55%) of the measures installed June 2001 through December 2002 were Electric Base Load Measures. Mandatory Measures (at 40%) were the second largest group of measures, and the least significant of the three groups was the Optional Measures at 5%.

Shown in Figure 2 below are the quantities of each Electric Base Load Measure installed by the CAL LIHEAP Service Providers.



**Figure 2: Electric Base Load Measures Installed**



Shown in Table 2 (pages 13 through 15) and Figures 3 and 4 (pages 16 and 17) are the numbers of Mandatory, Electric Base Load, Optional, and Other Optional measures installed each month by the CAL LIHEAP Service Providers.

**CAL LIHEAP Weatherization Installation Summary  
 Per Type of Measure**

<b>Month</b>	<b>Type of Measure</b>	<b>Qty</b>
<b>June 2001</b>	Mandatory	3,713
	Electric Base Load	2,527
	Optional	300
	Other Optional	54
<b>June Total</b>		<b>6,594</b>
<b>July 2001</b>	Mandatory	11,381
	Electric Base Load	10,210
	Optional	1,152
	Other Optional	97
<b>July Total</b>		<b>22,840</b>
<b>August 2001</b>	Mandatory	13,762
	Electric Base Load	28,871
	Optional	1,385
	Other Optional	169
<b>August Total</b>		<b>44,187</b>
<b>September 2001</b>	Mandatory	7,705
	Electric Base Load	11,465
	Optional	937
	Other Optional	91
<b>September Total</b>		<b>20,198</b>
<b>October 2001</b>	Mandatory	7,187
	Electric Base Load	11,043
	Optional	969
	Other Optional	66
<b>October Total</b>		<b>19,265</b>
<b>November 2001</b>	Mandatory	5,189
	Electric Base Load	9,233
	Optional	683
	Other Optional	43
<b>November Total</b>		<b>15,148</b>
<b>December 2001</b>	Mandatory	2,931
	Electric Base Load	9,425
	Optional	321
	Other Optional	30
<b>December Total</b>		<b>12,707</b>
<b>2001 CAL LIHEAP Totals</b>	<b>Mandatory</b>	<b>51,868</b>
	<b>Electric Base Load</b>	<b>82,774</b>
	<b>Optional</b>	<b>5,747</b>
	<b>Other Optional</b>	<b>550</b>
<b>2001 Cal LIHEAP Total</b>		<b>140,939</b>

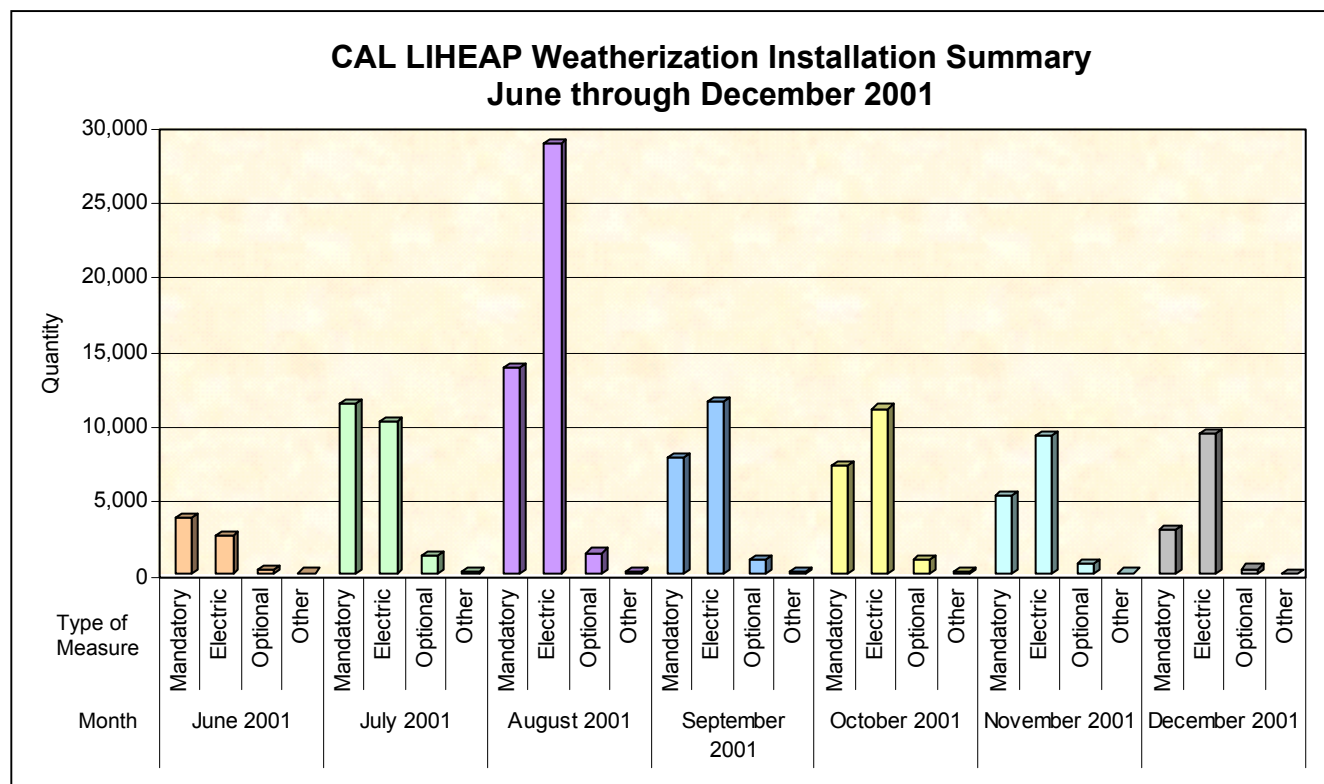
**CAL LIHEAP Weatherization Installation Summary (continued)**  
**Per Type of Measure**

<b>Month</b>	<b>Type of Measure</b>	<b>Qty</b>
<b>January 2002</b>	Mandatory	2,057
	Electric Base Load	3,178
	Optional	200
	Other Optional	53
<b>January Total</b>		<b>5,488</b>
<b>February 2002</b>	Mandatory	4,140
	Electric Base Load	3,736
	Optional	409
	Other Optional	4
<b>February Total</b>		<b>8,289</b>
<b>March 2002</b>	Mandatory	2,197
	Electric Base Load	3,080
	Optional	163
	Other Optional	11
<b>March Total</b>		<b>5,451</b>
<b>April 2002</b>	Mandatory	4,854
	Electric Base Load	4,588
	Optional	535
	Other Optional	35
<b>April Total</b>		<b>10,012</b>
<b>May 2002</b>	Mandatory	3,666
	Electric Base Load	1,970
	Optional	430
	Other Optional	62
<b>May Total</b>		<b>6,128</b>
<b>June 2002</b>	Mandatory	1,374
	Electric Base Load	1,188
	Optional	185
	Other Optional	3
<b>June Total</b>		<b>2,750</b>
<b>July 2002</b>	Mandatory	1,884
	Electric Base Load	1,160
	Optional	235
	Other Optional	0
<b>July Total</b>		<b>3,279</b>
<b>August 2002</b>	Mandatory	979
	Electric Base Load	1,128
	Optional	67
	Other Optional	97
<b>August Total</b>		<b>2,271</b>
<b>September 2002</b>	Mandatory	1,782
	Electric Base Load	1,630
	Optional	152
	Other Optional	0
<b>September Total</b>		<b>3,564</b>

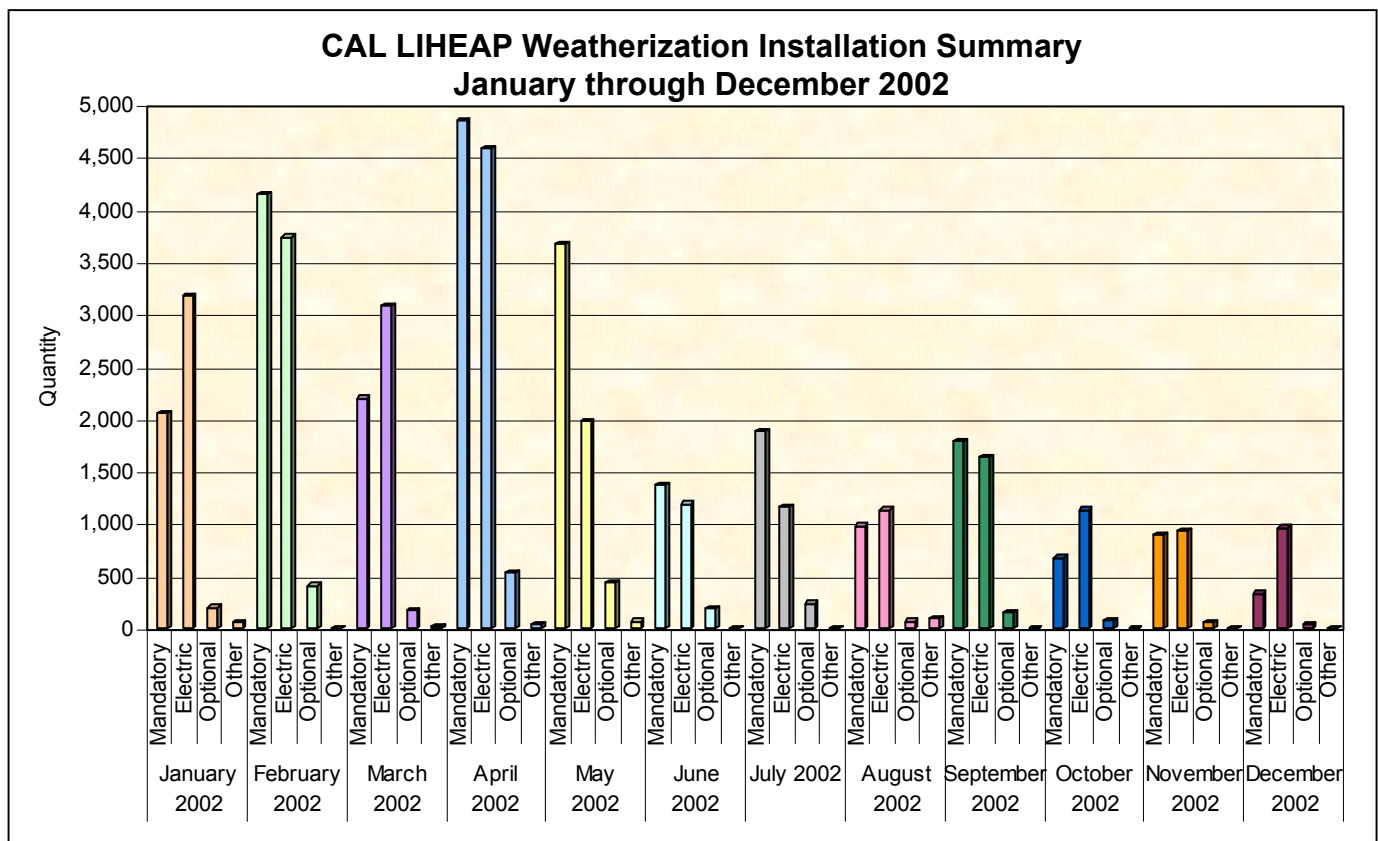
**CAL LIHEAP Weatherization Installation Summary (continued)**  
**Per Type of Measure**

<b>Month</b>	<b>Type of Measure</b>	<b>Qty</b>
<b>October 2002</b>	Mandatory	674
	Electric Base Load	1,132
	Optional	68
	Other Optional	0
<b>October Total</b>		<b>1,874</b>
<b>November 2002</b>	Mandatory	886
	Electric Base Load	935
	Optional	49
	Other Optional	0
<b>November Total</b>		<b>1,870</b>
<b>December 2002</b>	Mandatory	333
	Electric Base Load	958
	Optional	39
	Other Optional	0
<b>December Total</b>		<b>1,330</b>
<b>2002 CAL LIHEAP Totals To-Date</b>	<b>Mandatory</b>	<b>24,826</b>
	<b>Electric Base Load</b>	<b>24,683</b>
	<b>Optional</b>	<b>2,532</b>
	<b>Other Optional</b>	<b>265</b>
<b>2002 CAL LIHEAP Total To-Date</b>		<b>52,306</b>
<b>Totals June 2001 through December 2002</b>	<b>Mandatory</b>	<b>76,694</b>
	<b>Electric Base Load</b>	<b>107,457</b>
	<b>Optional</b>	<b>8,279</b>
	<b>Other Optional</b>	<b>815</b>
<b>CAL LIHEAP Program Totals To-Date</b>		<b>193,245</b>

**Table 2: CAL LIHEAP Installation Summary**



**Figure 3: CAL LIHEAP 2001 Installation Summary**



**Figure 4: CAL LIHEAP 2002 Installation Summary**

### **Estimated Energy Savings**

Overall, from June 1, 2001 through December 31, 2002, weatherization services have yielded 13,036,464 kilowatt hour (kWh) savings. The table below shows the annual kilowatt-hour savings for all weatherization measures installed per dollar expended.

Annual Kilowatt Hours Saved	WX Dollars Expended	Kilowatt Hours Saved per dollar expended
<b>13,036,464</b>	<b>\$32,874,676</b>	<b>0.396550342</b>

As mentioned above the total estimated energy savings to-date for CAL LIHEAP is 13,036,464 kWh of electricity as well as 505,139 therms of gas. The estimated energy saved is enough to provide:

- Electricity to 2,672 homes<sup>1</sup> for one year and gas to 1,197\* homes<sup>2</sup> for one year, or
- Electric water heating<sup>3</sup> to 100 homes for 47 years, or
- Central air conditioning<sup>4</sup> to 100 homes for 96 years, or
- Space heating<sup>5</sup> to 100 homes for 15 years.

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The above estimates are based on the following data taken from the Pacific Gas and Electric Company 1995 Residential Energy Survey Report:

<sup>1</sup>600-1,249 square foot home at 4,879 kWh per year

<sup>2</sup>600-1,249 square foot home at 422 therms per year

<sup>3</sup>Unit Energy Consumption (UEC) of 2,785 kWh per year

<sup>4</sup>UEC of 1,364 kWh per year

<sup>5</sup>UEC of 348 therms per year

\*In the January 2003 Legislative Report, these two numbers were calculated incorrectly. The correct figures are: gas to 1,175 homes for one year and space heating to 100 homes for 14 years.

This section summarizes estimated yearly energy savings for measures installed during the period of June 2001 through December 2002. The total projected yearly energy savings in kWh and therms for each measure installed was estimated and is shown in Table 3 below (\*unit of measure is per dwelling unless otherwise specified.)

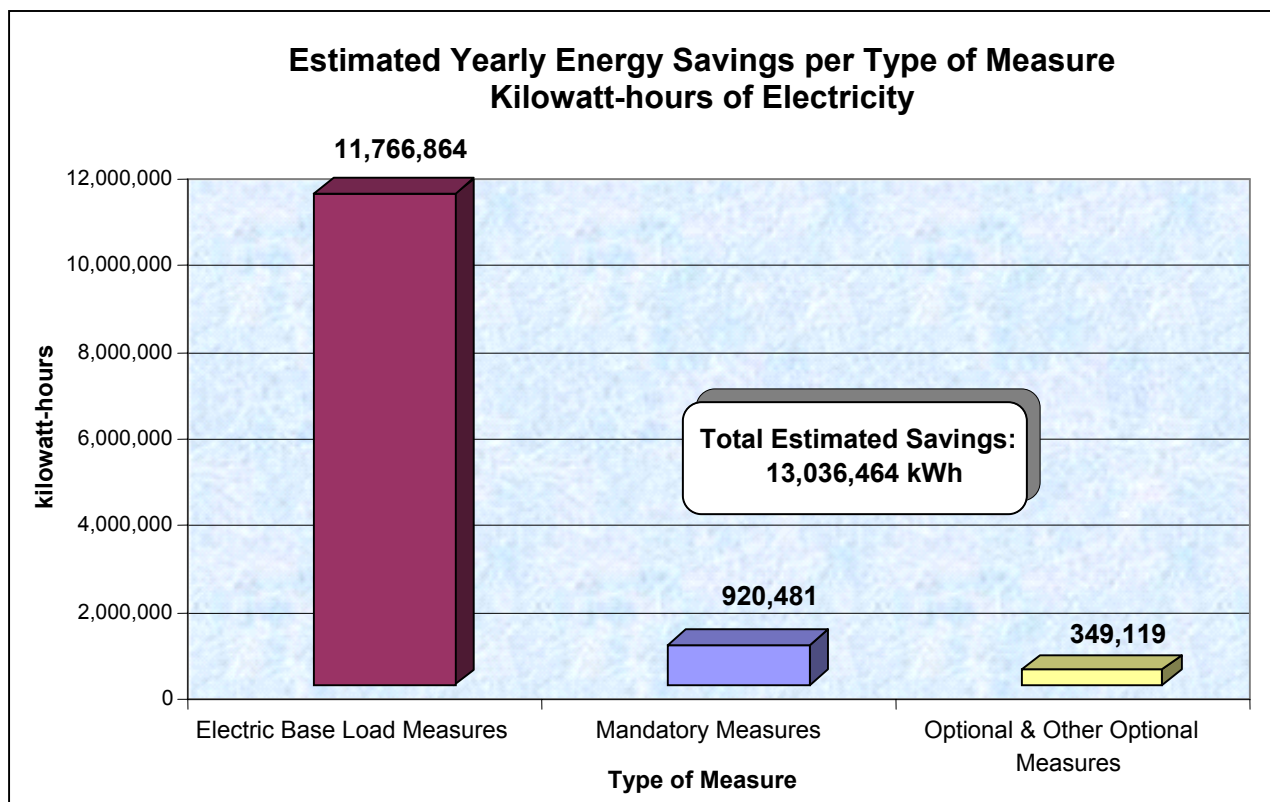
**Estimated Yearly Energy Savings per Measure  
June 2001 through December 2002**

<b>MANDATORY MEASURES*</b>		<b>kWh</b>	<b>Therms</b>
1	Glass Replacement	3,419	4,800
2	Duct and Register Repair/Replacement	52,239	7,463
3	Minor Envelope Repair	155,714	32,820
4	Evap. Cooler/Air Conditioner Vent Cover (Inside)	0	1,958
5	a. Ceiling Insulation R11	6,189	2,655
	c. Ceiling Insulation R19	34,131	6,797
	e. Ceiling Insulation R30	36,144	6,502
	f. Ceiling Insulation R38	7,135	2,470
6	Low-Flow Showerhead, per device	294,120	74,394
7	Hot Water Faucet Restrictor, per device	218,333	49,850
8	Door Weatherstripping, per door	19,084	13,427
9	Water Heater Blanket	47,099	19,016
10	Water Heater Pipe Wrap	13,621	2,762
11	Duct Wrap	7,936	6,628
12	Switch/Outlet Gaskets	3,323	5,504
13	Caulking	18,439	9,153
14	Other Weatherstripping	3,556	4,183
<b>Total Mandatory Measures</b>		<b>920,481</b>	<b>250,381</b>
15	<b>Electric Base Load Measures</b>		
	a. Refrigerator Replacement	5,477,665	0
	b. Electric Water Heater Repair/Replacement	30,186	0
	c. Microwave Oven	206,103	124,992
	d. Thread-based Compact Fluorescent Lamps	5,970,017	0
	e. Hard-Wired Compact Fluorescent Lamps	82,893	0
<b>Total Electric Base Load Measures</b>		<b>11,766,864</b>	<b>124,992</b>
<b>OPTIONAL MEASURES</b>			
1	Ceiling Fans	118,635	0
2	Evaporative Cooler Repair	2,664	0
3	Filter Replacement for A/C or Furnace, Filters Only	4,616	1,358
4	Filter Replacement for A/C or Furnace, Filters + Repl. Signal	1,683	530
5	Setback Thermostat	218,483	125,771
6	Other Optional Measures	3,038	2,107
<b>Total Optional &amp; Other Optional Measures</b>		<b>349,119</b>	<b>129,766</b>
<b>TOTAL ESTIMATED YEARLY ENERGY SAVINGS</b>		<b>13,036,464</b>	<b>505,139</b>

**Table 3: Yearly Estimated Energy Savings per Measure**

Figure 5 on this page and Figure 6 on the next page graphically depict energy savings per type of measure (Electric Base Load, Mandatory, and Optional) in kilowatt-hours (Figure 5) and therms (Figure 6).

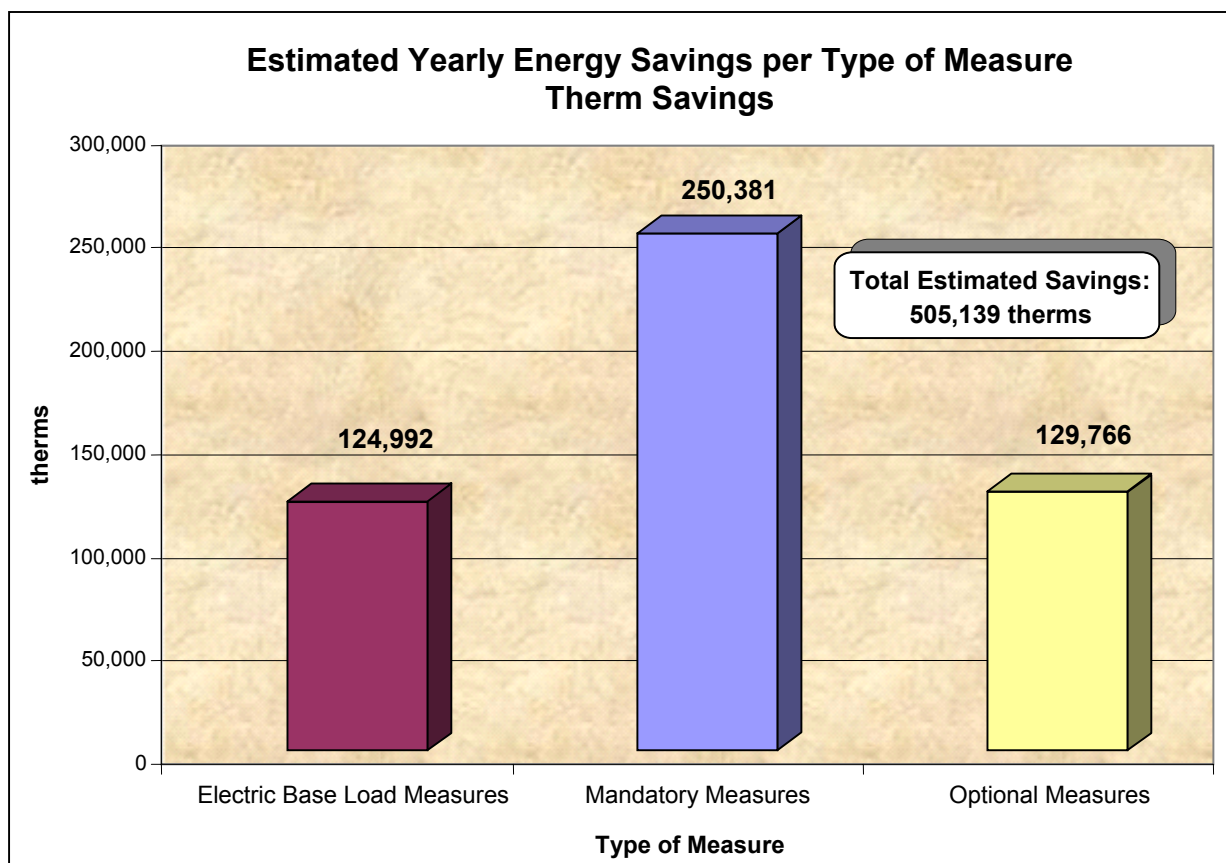
The Electric Base Load Measures had the largest estimated kilowatt-hour savings compared to the Mandatory and Optional measures, as shown in Figure 5. This was expected, as the Electric Base Load Measures are given the highest installation priority in the CAL LIHEAP program.



**Figure 5: Estimated Yearly Kilowatt-hour Savings per Type of Measure**

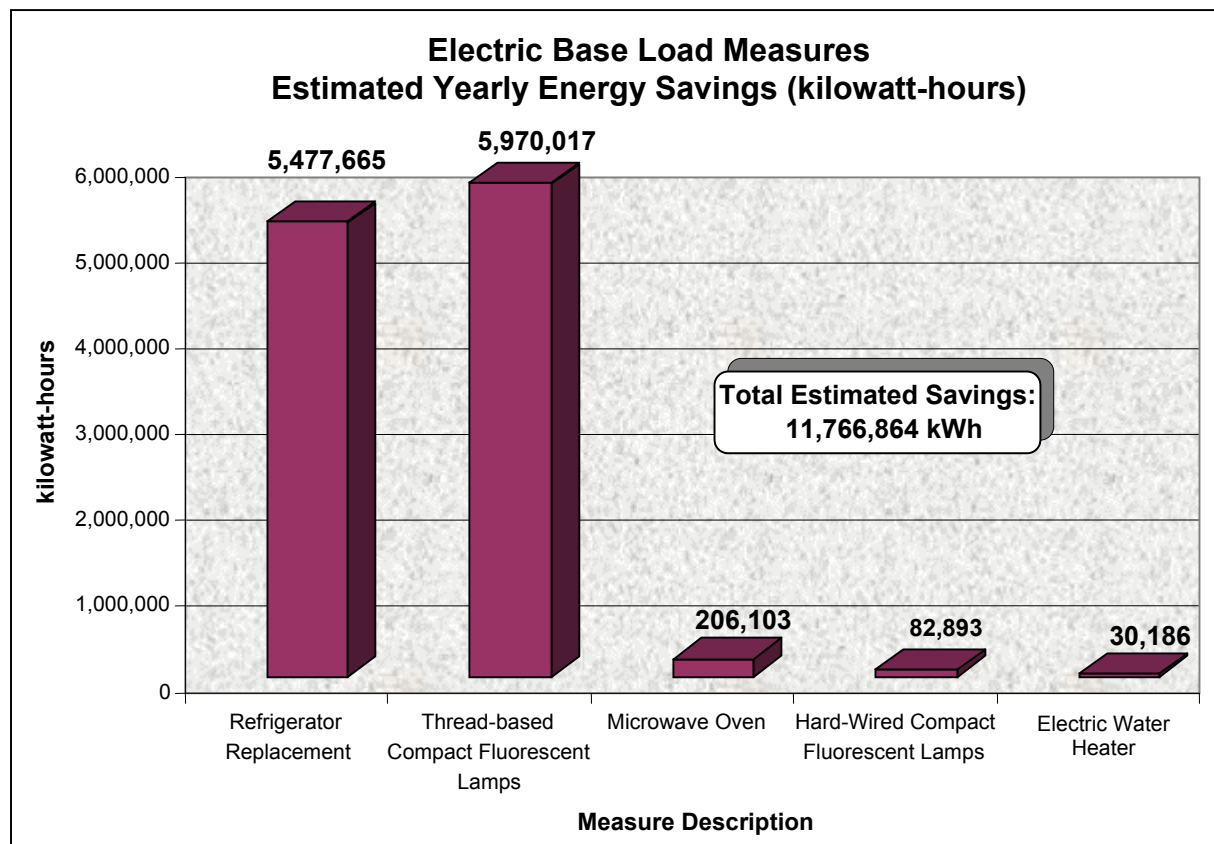


Depicted in Figure 6 below are estimated therm savings associated with each type of measure. Because most of the Mandatory Measures focus on the building shell performance, the highest projected savings are associated with natural gas and propane savings as opposed to kilowatt-hour savings, since most buildings are heated with gas. However, the Electric Base Load Measures are projected to achieve some fuel savings, due to the potential savings associated with the installation of microwave ovens, and some limited increased performance of the building shell and the mechanical systems.



**Figure 6: Estimated Yearly Therm Savings per Type of Measure**

The estimated yearly kilowatt-hour savings associated with the installation of each Electric Base Load Measure is depicted in Figure 7. As shown in the graph the Thread-based Compact Fluorescent Lamps measure to-date has shown to have the highest estimated yearly kilowatt-hour savings impact in the CAL LIHEAP Program. The Refrigerator Replacement measure also proves to have a very positive savings impact.



**Figure 7: Electric Base Load Measures Estimated Energy Savings**

Included in Table 4 (pages 23 through 25) is a summary of projected yearly energy savings associated with installation of CAL LIHEAP weatherization measures per month; for the months of June 2001 through December 2002.

### Estimated Yearly Energy Savings Per Measure

Month	Type of Measure	kWh	Therms
June 2001	Mandatory	27,963	13,350
	Electric Base Load	260,386	3,110
	Optional	8,214	4,051
	Other Optional	175	121
<b>June Total</b>		<b>296,738</b>	<b>20,632</b>
July 2001	Mandatory	118,975	35,058
	Electric Base Load	1,131,507	9,216
	Optional	48,875	17,839
	Other Optional	981	171
<b>July Total</b>		<b>1,300,339</b>	<b>62,283</b>
August 2001	Mandatory	165,341	48,571
	Electric Base Load	2,948,535	39,283
	Optional	67,150	20,413
	Other Optional	237	818
<b>August Total</b>		<b>3,181,263</b>	<b>109,086</b>
September 2001	Mandatory	90,668	25,162
	Electric Base Load	1,324,823	13,565
	Optional	37,293	12,842
	Other Optional	480	124
<b>September Total</b>		<b>1,453,264</b>	<b>51,693</b>
October 2001	Mandatory	75,702	27,575
	Electric Base Load	1,651,388	16,042
	Optional	50,071	18,779
	Other Optional	49	74
<b>October Total</b>		<b>1,777,210</b>	<b>62,469</b>
November 2001	Mandatory	46,311	16,117
	Electric Base Load	1,107,817	10,685
	Optional	13,311	11,671
	Other Optional	566	184
<b>November Total</b>		<b>1,168,004</b>	<b>38,658</b>
December 2001	Mandatory	29,720	7,879
	Electric Base Load	743,781	16,906
	Optional	6,282	3,226
	Other Optional	42	64
<b>December Total</b>		<b>779,826</b>	<b>28,075</b>
<b>2001 CAL LIHEAP Totals</b>	<b>Mandatory</b>	<b>554,680</b>	<b>173,712</b>
	<b>Electric Base Load</b>	<b>9,168,237</b>	<b>108,806</b>
	<b>Optional</b>	<b>231,196</b>	<b>88,822</b>
	<b>Other Optional</b>	<b>2,530</b>	<b>1,555</b>
<b>2001 CAL LIHEAP</b>		<b>9,956,644</b>	<b>372,895</b>

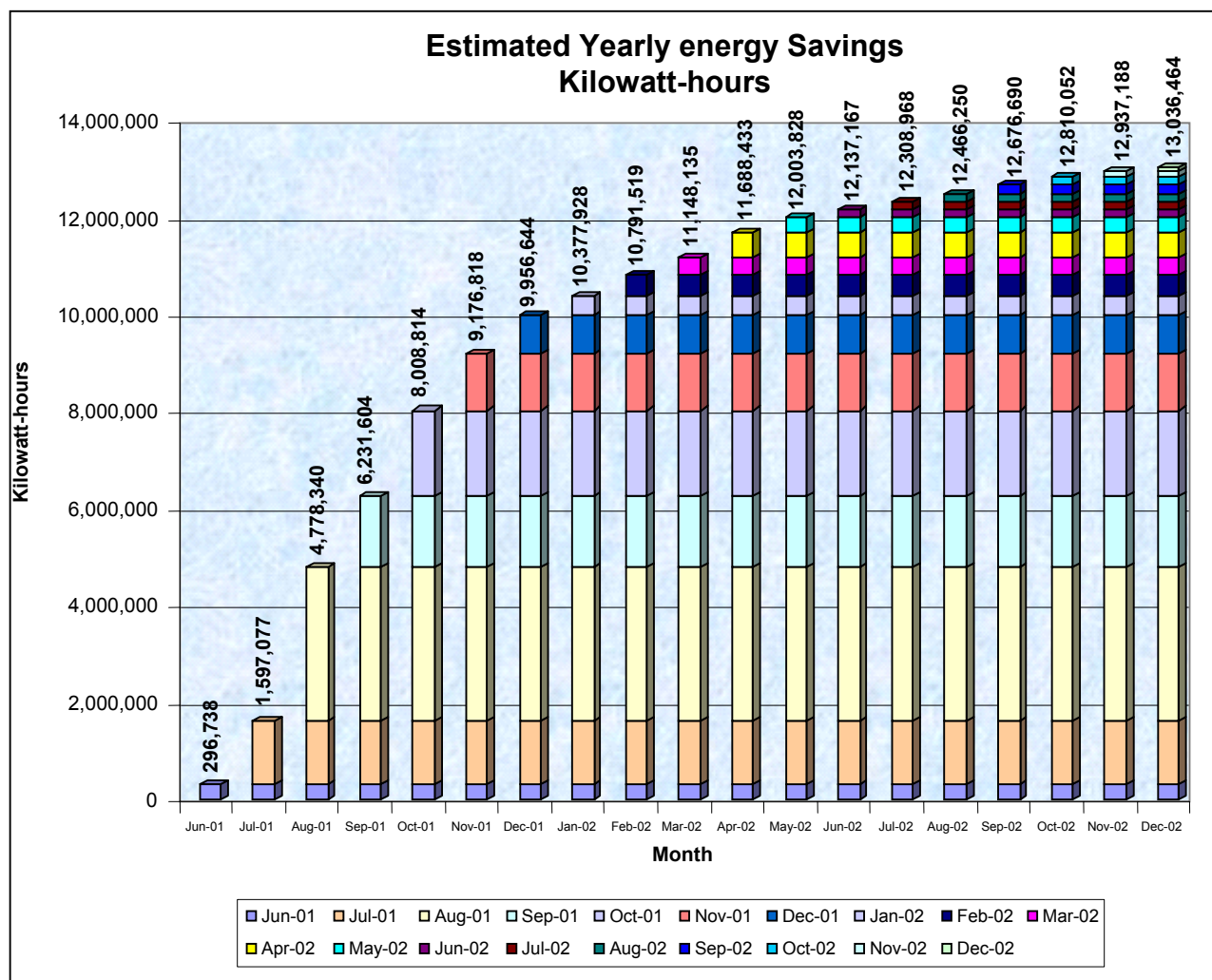
**Estimated Yearly Energy Savings Per Measure (continued)**

<b>Month</b>	<b>Type of Measure</b>	<b>kWh</b>	<b>Therms</b>
<b>January 2002</b>	Mandatory	19,362	7,976
	Electric Base Load	397,691	3,773
	Optional	4,190	4,279
	Other Optional	42	188
<b>January Total</b>		<b>421,285</b>	<b>16,216</b>
<b>February 2002</b>	Mandatory	97,321	11,064
	Electric Base Load	310,347	2,592
	Optional	5,912	4,723
	Other Optional	11	17
<b>February Total</b>		<b>413,591</b>	<b>18,395</b>
<b>March 2002</b>	Mandatory	34,624	6,385
	Electric Base Load	318,399	1,814
	Optional	3,547	3,397
	Other Optional	47	47
<b>March Total</b>		<b>356,616</b>	<b>11,644</b>
<b>April 2002</b>	Mandatory	68,802	14,103
	Electric Base Load	433,781	3,370
	Optional	37,459	8,880
	Other Optional	256	72
<b>April Total</b>		<b>540,297</b>	<b>26,424</b>
<b>May 2002</b>	Mandatory	58,687	10,381
	Electric Base Load	239,858	1,411
	Optional	16,716	3,507
	Other Optional	136	208
<b>May Total</b>		<b>315,396</b>	<b>15,507</b>
<b>June 2002</b>	Mandatory	28,133	3,455
	Electric Base Load	101,898	317
	Optional	3,292	2,634
	Other Optional	16	20
<b>June Total</b>		<b>133,339</b>	<b>6,425</b>
<b>July 2002</b>	Mandatory	25,334	7,158
	Electric Base Load	122,009	1,152
	Optional	24,459	2,682
	Other Optional	0	0
<b>July Total</b>		<b>171,801</b>	<b>10,993</b>
<b>August 2002</b>	Mandatory	16,950	2,701
	Electric Base Load	135,619	432
	Optional	4,712	578
	Other Optional	0	0
<b>August Total</b>		<b>157,281</b>	<b>3,711</b>
<b>September 2002</b>	Mandatory	10,172	6,543
	Electric Base Load	193,752	490
	Optional	6,516	3,997
	Other Optional	0	0
<b>September Total</b>		<b>210,440</b>	<b>11,030</b>

<b>Estimated Yearly Energy Savings Per Measure (continued)</b>			
<b>Month</b>	<b>Type of Measure</b>	<b>kWh</b>	<b>Therms</b>
<b>October 2002</b>	Mandatory	3,563	2,003
	Electric Base Load	125,108	0
	Optional	4,691	1,616
	Other Optional	0	0
<b>October Total</b>		<b>133,362</b>	<b>3,619</b>
<b>November 2002</b>	Mandatory	2,494	4,015
	Electric Base Load	122,435	835
	Optional	2,208	1,545
	Other Optional	0	0
<b>November Total</b>		<b>127,137</b>	<b>6,395</b>
<b>December 2002</b>	Mandatory	361	885
	Electric Base Load	97,730	0
	Optional	1,184	1,000
	Other Optional	0	0
<b>December Total</b>		<b>99,275</b>	<b>1,885</b>
<b>2002 CAL LIHEAP Totals To-Date</b>	<b>Mandatory</b>	<b>365,801</b>	<b>76,670</b>
	<b>Electric Base Load</b>	<b>2,598,626</b>	<b>16,186</b>
	<b>Optional</b>	<b>114,884</b>	<b>38,838</b>
	<b>Other Optional</b>	<b>508</b>	<b>552</b>
<b>2002 CAL LIHEAP Total To-Date</b>		<b>3,079,820</b>	<b>132,244</b>
<b>Totals June 2001 through December 2002</b>	<b>Mandatory</b>	<b>920,481</b>	<b>250,381</b>
	<b>Electric Base Load</b>	<b>11,766,864</b>	<b>124,992</b>
	<b>Optional</b>	<b>346,081</b>	<b>127,659</b>
	<b>Other Optional</b>	<b>3,038</b>	<b>2,107</b>
<b>CAL LIHEAP Program Totals To-Date</b>		<b>13,036,464</b>	<b>505,139</b>

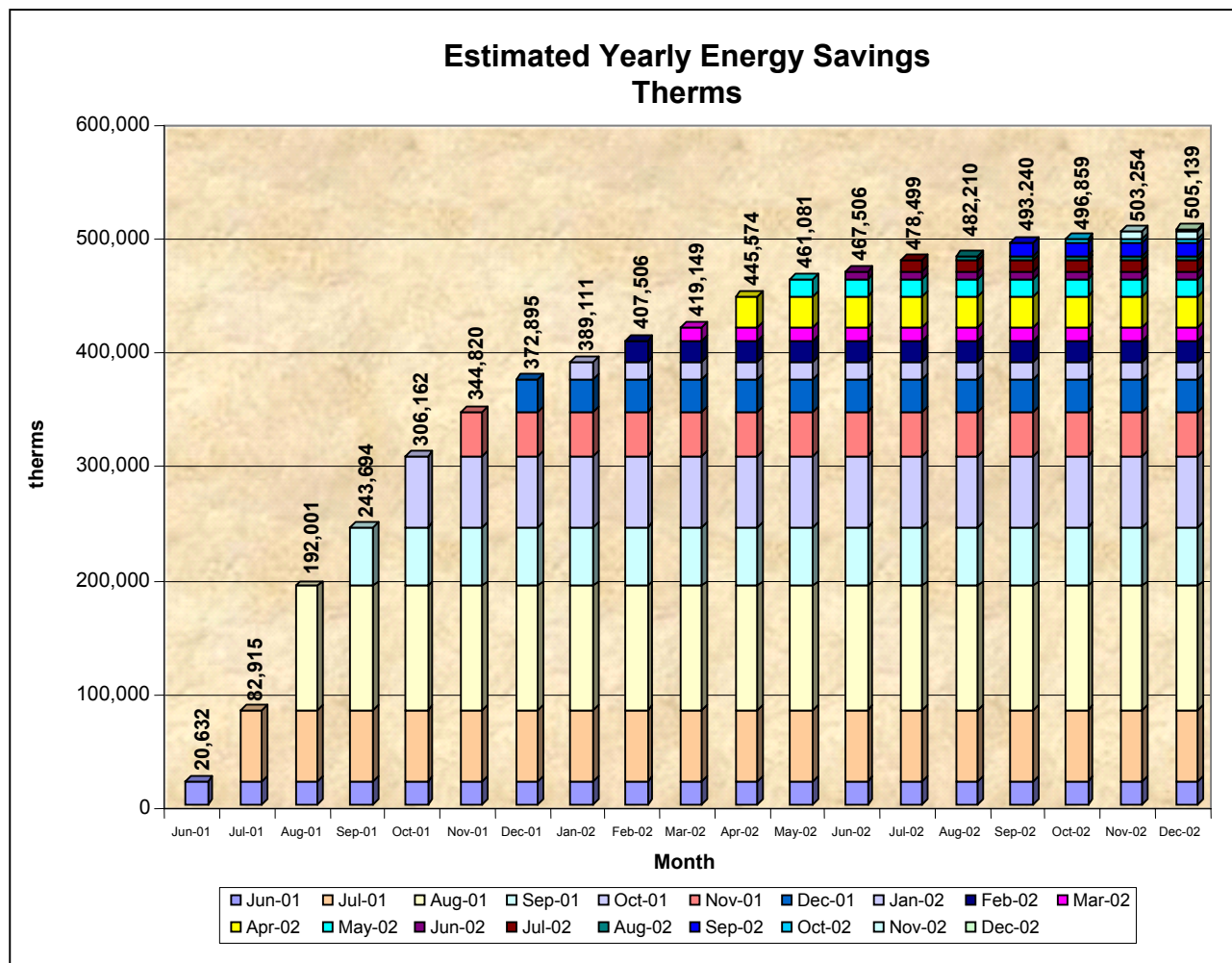
**Table 4: Estimated Yearly Energy Savings  
 June 2001 through December 2002**

Shown in Figures 8 and 9 is the monthly cumulative estimated kilowatt-hour and therm savings for CAL LIHEAP to-date. Appendix C contains a summary of estimated yearly energy savings for the 45 CAL LIHEAP Service Providers and two (2) Native American Indian providers.



**Figure 8: Cumulative Monthly Kilowatt-hour Savings**





**Figure 9: Cumulative Monthly Therm Savings**

### **Additional WX Measures**

Upon further analysis CSD has decided not to incorporate the additional WX measures, previously reported, into the CAL LIHEAP Program. The new measures included Evaporative Cooler Installation and Air Conditioning, which require extensive installation requirements. A comprehensive training curriculum is being developed that will include new measure training; lead safe weatherization and Health and Safety, and a review of the significant changes in the Weatherization Installation Standards Manual (WIS) and the Policy and Procedures (P&Ps).

The goal is to coordinate the adoption of the new measures to coincide with the release of CSD's revised WIS and P&Ps and installation training to avoid the adoption of the new measures without initially providing training on the installation methods. It will take several months to develop the newly proposed training curriculum. Therefore, due to the time involved, the training and adoption of the new measures will not occur during the current CAL LIHEAP contract term.





## Program Accomplishments

(June 1, 2001 through December 31, 2002)

### Households Served

As noted above, CSD contracts with forty-five (45) public and private community based organizations and two (2) Native American Indian organizations to provide CAL LIHEAP services to California's low-income population. During the period of June 1, 2001 through December 31, 2002, CAL LIHEAP Local Service Providers have served:

#### **149,833** low-income households:

- 42,112 households in crisis situation received ECIS assistance.
- 76,215 households energy received CAP assistance.
- 31,506 homes weatherized for energy efficiency.\*
- 21 Licensed Community Care Facilities weatherized for energy efficiency.\*
  - 19,194 refrigerators installed.\*
  - 290 electric water heaters installed.\*
  - 19,756 microwave ovens installed.\*
  - 87,498 compact fluorescent lamps installed.\*

#### **184,251** Vulnerable Population (VP) Individuals:

- 47,507 Elderly
- 45,762 Disabled
- 31,512 Limited-English-Speaking
- 1,409 Migrant Farmworker
- 1,916 Seasonal Farmworker
- 56,145 Children (0-5)

CSD is striving to serve each vulnerable population group at a level comparable to their percentage of California's total population. The chart below shows the results of the most recent data in respect to service to vulnerable populations with CAL LIHEAP funds.

Vulnerable Populations	Population Based on 1990 Census	% of Population	% of Individuals served under CAL LIHEAP
Children	2,376,474	7.99%	12.49%
Elderly	4,224,441	14.20%	10.57%
Disabled	2,353,808	7.91%	10.18%
Limited English Speaking	2,648,803	8.90%	7.01%
Migrant and Seasonal Farmworkers	938,758	3.15%	0.74%

\*Please reference page 7 for an explanation of the difference in the numbers reported to CSD and RHA.

### **Additional Funding for Vulnerable Populations**

Senate Bill 5X requires CSD to examine the penetration of other energy programs, including, but not limited to, those provided through federal LIHEAP, utility companies and other parties, to identify the adequacy of services to elderly persons, disabled persons, limited-English-speaking persons, migrant and seasonal farmworkers and households with very young children. The legislation also requires that CAL LIHEAP funds should be distributed so as to ensure that vulnerable populations have comparable access to energy programs.

Unfortunately, none of the existing energy programs, with the exception of CAL LIHEAP, capture data on all the vulnerable populations specified in SB 5X. The federal LIHEAP program captures data on the elderly, the disabled, and households with very young children; however, data on limited-English-speaking persons, and migrant and seasonal farmworkers is not required to be collected. CSD has required the CAL LIHEAP Local Service Providers to report on all the vulnerable populations specified in SB 5X; however, in order to obtain an adequate amount of data, it was necessary for CSD to collect several months worth of information in the CAL LIHEAP program.

As shown in previous legislative reports, the penetration rate for several of the vulnerable populations has not been adequate. Therefore, CSD consistently monitors the penetration rate of services to the both the elderly and migrant and seasonal farmworker populations. To mitigate the deficiencies affecting the elderly and migrant and seasonal farmworkers, CSD's Director has appropriated \$3.8 million from the 2001-2002 Petroleum Violation Escrow Account (PVEA) funds for weatherization services and energy cash assistance.

#### **Migrant and Seasonal Farmworkers**

CSD's Director awarded \$500,000 of Community Services Block Grant (CSBG) Discretionary funding and \$1.8 million in PVEA funds to La Cooperativa Campesina de California and its network of Migrant Seasonal Farmworker agencies to provide start up costs for their leveraging activities with Pacific Gas and Electric Company (PG&E) and Southern California Edison (SCE) Company. La Cooperativa provides outreach and intake to migrant and seasonal farmworker households and coordinates the replacement of refrigerators and the installation of compact fluorescent bulbs in these same households. La Cooperativa has been successful in leveraging \$3,942,900 dollars in contracts with PG&E and SCE. From June 1, 2001 through December 31, 2002, La Cooperativa has installed 192,921 compact fluorescent bulbs and 13,683 refrigerators in 43,157 eligible migrant and seasonal farmworker households.

### Elderly

In addition, CSD's Director has awarded an additional \$2 million in PVEA funds to Local Service Providers to be used exclusively for the elderly vulnerable population. These funds were distributed in May 2002 to provide ECIS, CAP and WX assistance to this underserved population. Local Service Providers must target and serve only those eligible households in which the elderly person is the head of household. Elderly head of household is defined as: *The elderly person is responsible for paying more than half of the costs of maintaining the household.*

For the period of June 1, 2002 through December 31, 2002), using PVEA funds to supplement the CAL LIHEAP State General Funds and to target elderly head of households, CAL LIHEAP Local Service Providers served 2,540 low-income elderly households in addition to those elderly served on page 29. The 2,540 elderly households included:

- 2,801 Elderly
- 1,044 Disabled
- 261 Limited-English-Speaking
- 2 Migrant Farmworker
- 3 Seasonal Farmworkers
- 85 Children

7,952 weatherization measures were installed including:

- 291 Replacement Refrigerators
- 6 Electric Water Heaters
- 258 Microwave Ovens
- 2,130 Compact Fluorescent Lamps



### **Estimated Unmet Need**

The program objectives as defined by Senate Bill 5X were to 1) increase energy conservation and reduce demand for energy services in low-income households, 2) assure that the most vulnerable households cope with high energy costs and 3) increase participation in the federal LIHEAP program.

Shown below is the estimated unmet need for low-income persons at or below 250% of the Federal Poverty level.

Number of Households at or below 250% of Federal Poverty level.	5,145,014
Number of Households Served Under CAL LIHEAP	149,833
<b>Estimated Number of Low-Income Households Unserved</b>	<b>4,995,181</b> <b>97.10%</b>



## **Automated Data Collection and Reporting**

In 1999-2000, CSD developed, designed and implemented an automated data collection and reporting system to continuously collect and track federal LIHEAP client data. The *California LIHEAP Automated Services System (CLASS)*, facilitates the use of the Extranet for on-line data entry and data file transfer between the department and its network of contracting LIHEAP/CAL LIHEAP Local Service Providers. At the onset of CAL LIHEAP, CLASS was redesigned to collect CAL LIHEAP eligible households in addition to federal LIHEAP data.

CLASS revolutionizes the intake process at the local level. First, the method of CLASS On-line Entry, allows local service providers to enter client data directly into CSD's databases. Entered data is then evaluated for eligibility purposes (income and priority). The second method of Data-Base Transfer (DBT), allows those local service providers, using stand alone database platforms, to support the intake processes of CAP and ECIS, to provide CSD with client data approved for benefits through the means of data file transfer. Essentially, DBT service providers provide data file extracts to CSD, in which they are up-loaded into CSD databases for benefit issuance. Once records are deemed eligible for payment, then CSD will issue CAP and ECIS benefits, by either issuing a warrant or by directly crediting the client's utility account.

The CLASS On-line Entry assists CAL LIHEAP Service Providers in targeting and prioritizing the delivery of CAP and ECIS assistance. Based on approved local service provider priority plans, CLASS will rank those households, based on input client values in order of priority. Typically, priority is based on household incomes, energy burden, and other factors such as members of target populations including households with children, elderly, disabled, limited-English-speaking and migrant and seasonal farmworkers.

CAL LIHEAP Local Service Providers use CLASS to monitor and maintain client data, monitor on-line reports, resolve ECIS and CAP payment issues and to transmit data for those clients completing a dual-purpose Energy Intake Form for those clients who wish to apply for the California Alternate Rates for Energy (CARE).

In addition to the CLASS System, CSD requires CAL LIHEAP Local Service Providers to submit monthly reports on total expenditures, number of weatherization measures installed, types of dwellings weatherized, vulnerable populations served, households assisted, etc. This data is entered into CSD's Programs, Audits, Reports and Contracts (PARC) system where staff is able to monitor and assess the progress of each local service provider.



## **Conclusion**

CSD would like to thank all of the organizations and persons who have, and continue to provide, support in fulfilling the goals of the CAL LIHEAP Program. Throughout the past 19 months, CAL LIHEAP Service Providers have served over 149,000 low-income households and installed more than 244,500 weatherization measures, which has resulted in savings of more than 13 million kilowatt-hours of electricity and 505,000 therms of gas.

As reflected throughout this report, the CAL LIHEAP funding and increased flexibility within the CAL LIHEAP cash assistance and crisis intervention components has allowed CAL LIHEAP Service Providers to significantly increase the number of households served, as well as reduce the demands on California's energy grid. The flexibility allowed through the CAL LIHEAP Program to provide multiple payments and higher benefit levels helped to offset arrearages many clients experienced during California's energy crisis. Additionally, setting the eligibility level at 250% of the federal poverty guidelines enabled CAL LIHEAP Service Providers to also serve those clients considered the "working poor," who would otherwise go unserved under other energy assistance programs.

The increased flexibility in the CAL LIHEAP Program afforded CSD the opportunity to select weatherization measures with the largest potential electric savings and ease of installation. This resulted in a high number of measures being installed in a short time frame, which immediately reduced low-income clients' energy costs and energy usage, and which will reduce energy consumption for years to come. To conclude, the CAL LIHEAP Program has eased the energy burden of many low-income Californians and helped reduce California's energy usage.

# APPENDICES

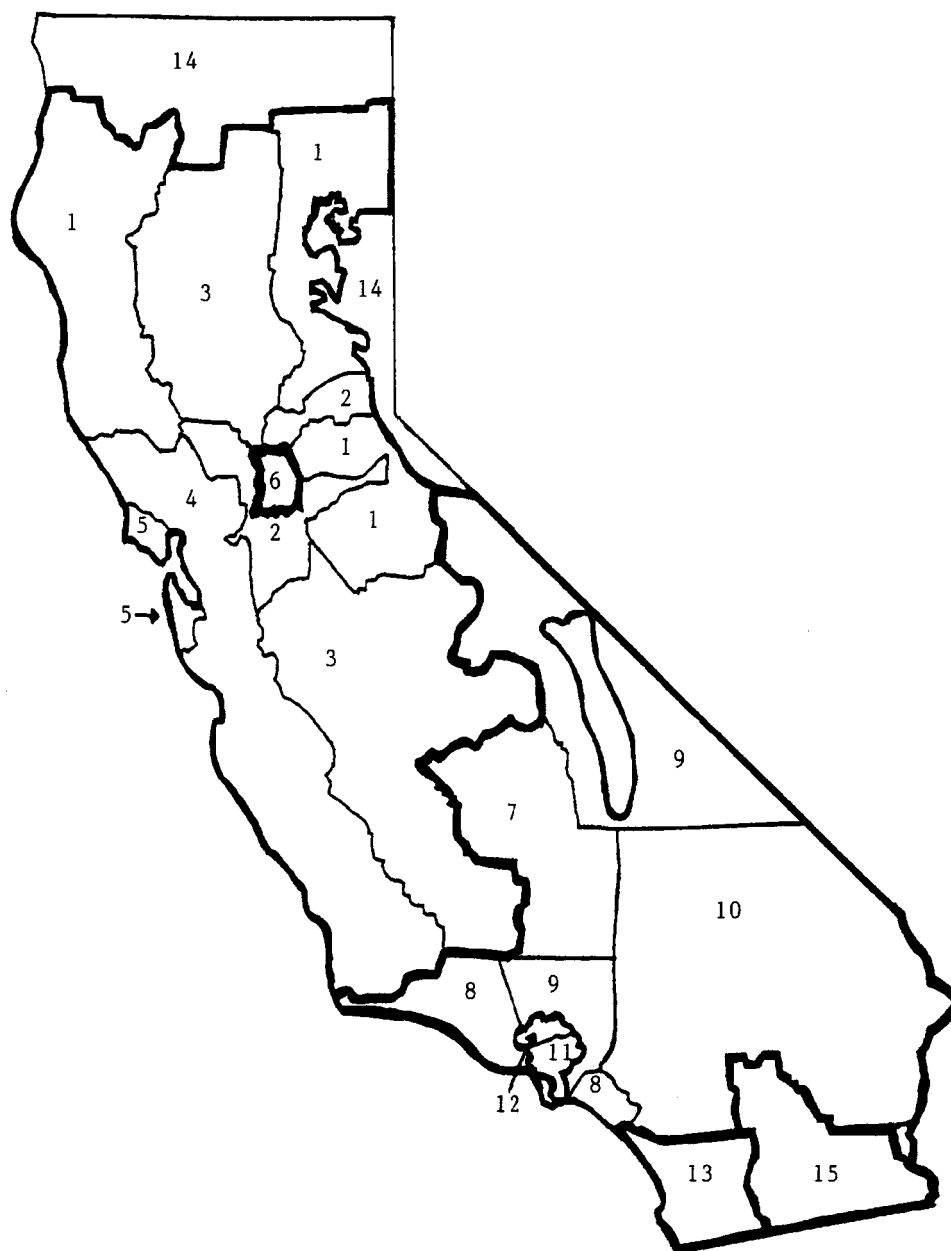


## Appendix A



Since CSD CAL LIHEAP is a statewide program, its service territory traverses multiple climate zones and includes customers from the four major investor-owned utilities. In order to apply the per measure energy impacts developed in the CEC Statewide 2001 Database for Energy Efficiency Resources (DEER) Update Study, each CAL LIHEAP Service Provider was assigned a CEC Forecasting Climate Zone that correlated with the utility in which the agency performs weatherization services. It should be noted that the CEC Forecasting Climate Zones used in the 2001 DEER Update study are different than the Title-24 climate zones. Appendix A contains 1) a map illustrating the CEC climate zones, and 2) a list of the 45 Service Providers with their corresponding CEC Forecasting Climate Zones.

### Map of California Energy Commission Forecasting Climate Zones





### CAL LIHEAP Providers Forecasting Climate Zones

#	CAL LIHEAP Service Provider	CEC Forecasting Climate Zone	Utility
1	Amador-Tuolumne Community Action Agency	1, 14	PG&E
2	California Human Development Corp.	4	PG&E
3	Campesinos Unidos, Inc.	15	SDG&E
4	Central Valley Opportunity Center, Inc.	3	PG&E
5	City of Berkeley	4	PG&E
6	Colusa-Glenn-Trinity Community Action Agency	3	PG&E
7	Community Action Agency of Butte County, Inc.	3	PG&E
8	Community Action Agency of San Mateo County, Inc.	5	PG&E
9	Community Action Commission of Santa Barbara County	4	PG&E
10	Community Enhancement Services	9, 12, 16	SCE/SoCal Gas
11	Community Resource Project, Inc.	3	PG&E
12	Community Services and Employment Training, Inc.	7	SCE/SoCal Gas
13	Contra Costa County Community Services Department	4	PG&E
14	County of Riverside, Department of Community Action	10	SCE/SoCal Gas
15	Del Norte Senior Center	14	PG&E
16	Economic and Social Opportunities, Inc.	4	PG&E
17	Economic Opportunity Commission of San Luis Obispo, Inc.	4	PG&E
18	Economic Opportunity Council of San Francisco	5	PG&E
19	El Dorado County Department of Community Services	1, 14	PG&E
20	Energy Services, Community Action Board of Santa Cruz County, Inc.	4	PG&E
21	Fresno County Economic Opportunities Commission	3	PG&E
22	Great Northern Corporation	14	PG&E
23	Inyo Mono Advocates for Community Action, Inc.	9	SCE/SoCal Gas
24	Kern County Economic Opportunity Corp.	3, 7	PG&E/SCE SoCal Gas
25	Kings Community Action Organization, Inc.	3	PG&E
26	Madera County Community Action Committee, Inc.	3	PG&E
27	Maravilla Foundation	9, 12, 16	SCE/SoCal Gas
28	Mariposa County Human Services Department	3	PG&E
29	Merced County Community Action Agency	3	PG&E
30	Metropolitan Area Advisory Committee	13	SDG&E
31	Nevada County Department of Housing and Community Services	1, 14	PG&E
32	North Coast Energy Services	1	PG&E
33	Orange County Community Development Council, Inc.	8	SCE/SoCal Gas
34	Pacific Asian Consortium in Employment	9, 12, 16	SCE/SoCal Gas
35	Plumas County Community Development Commission	1, 14	PG&E
36	Project Go, Inc.	2	PG&E
37	Redwood Community Action Agency	1	PG&E
38	San Benito County Dept. of Comm. Serv. & Workforce Dev.	4	PG&E
39	San Bernardino County Community Services Department	10	SCE/SoCal Gas
40	San Joaquin County Dept. of Aging, Children's and Comm. Serv.	2	PG&E
41	Self-Help Home Improvement Project, Inc.	3	PG&E
42	Spectrum Community Services, Inc.	4	PG&E
43	TEACH, Inc.	14	PG&E
44	Ventura County Commission on Human Concerns	8	SCE/SoCal Gas
45	Veterans in Community Services, Inc.	9, 12, 16	SCE/SoCal Gas

## Appendix B



## Per Measure Energy Impact

### Utility Service Territory PG&E

CEC Forecasting Climate Zones: 1 to 5

DEPARTMENT OF COMMUNITY SERVICES AND DEVELOPMENT 2001 CALIFORNIA LIHEAP		CSD Energy Savings			Source
		Per Measure Electric Impact (kWh)		Per Measure Gas Impact (Therms)	
		SH	AC		
<b>WEATHERIZATION ACTIVITIES</b>					
1	Non-Blower Door Assessment (with attic)	No Energy Savings			
2	Non-Blower Door Assessment (without attic)	No Energy Savings			
3	Safety Check of Combustion Appliances (Pre-Test)	No Energy Savings			
4	Safety Check of Combustion Appliances (Post-Test)	No Energy Savings			
5	Blower Door Test	No Energy Savings			
6	Duct Leakage Pre-Test	No Energy Savings			
7	Duct Leakage Post-Test	No Energy Savings			
<b>MANDATORY MEASURES</b>					
1	Combustion Appliance Safety Hazard Repair/Replacement	No Energy Savings			
2	Glass Replacement(SF)	5.9	5.9	3.0	[1]
	Glass Replacement(MF)	1.1	1.1	2.0	[1]
3	Duct and Register Repair/Replacement (SF)	258.4	258.4	20.0	[1]
	Duct and Register Repair/Replacement (MF)	142.0	142.0	0.0	[1]
4	Minor Envelope Repair(SF)	67.9	32.5	7.2	[2]
	Minor Envelope Repair (MF)	66.5	25.5	0.7	[2]
5	Evap. Cooler/Air Conditioner Vent Cover (Inside)(SF)			2.6	[2]
	Evap. Cooler/Air Conditioner Vent Cover (Inside) (MF)			2.6	[2]
6	Attic Venting	No Energy Savings			
7	a. Ceiling Insulation R11 (SF)	271.7	129.9	29.0	[2]
	a. Ceiling Insulation R11 (MF)	266.1	102.0	2.9	[2]
	b. Kneewall Insulation R11	Included in Ceiling Insulation			
	c. Ceiling Insulation R19 (SF)	271.7	129.9	29.0	[2]
	c. Ceiling Insulation R19 (MF)	266.1	102.0	2.9	[2]
	d. Kneewall Insulation R19	Included in Ceiling Insulation			
	e. Ceiling Insulation R30 (SF)	271.7	129.9	29.0	[2]
	e. Ceiling Insulation R30 (MF)	266.1	102.0	2.9	[2]
	f. Ceiling Insulation R38 (SF)	271.7	129.9	29.0	[2]
	f. Ceiling Insulation R38 (MF)	266.1	102.0	2.9	[2]
8	Low-Flow Showerhead (MF)	185.7		9.7	[1]
	Low-Flow Showerhead (SF)	149.0		8.7	[1], [2]
9	Hot Water Faucet Restrictor(SF)	72.7		3.7	[1]
	Hot Water Faucet Restrictor(MF)	58.3		3.0	[1]
10	Door Weatherstripping (SF)	5.9	5.9	3.0	[1]
	Door Weatherstripping (MF)	3.0	3.0	1.0	[1], [2]

**Utility Service Territory PG&E**  
**CEC Forecasting Climate Zones: 1 to 5**

DEPARTMENT OF COMMUNITY SERVICES AND DEVELOPMENT 2001 CALIFORNIA LIHEAP		CSD Energy Savings			Source
		Per Measure Electric Impact (kWh)		Per Measure Gas Impact (Therms)	
		SH	AC		
11	Water Heater Blanket (SF)	251.0		13.0	[1]
	Water Heater Blanket (MF)	202.0		12.0	[1]
12	Water Heater Pipe Wrap (SF)	53.0		3.3	[2]
	Water Heater Pipe Wrap (MF)	53.0		3.3	[2]
13	Duct Wrap (SF)	124.0	124.0	10.0	[3]
	Duct Wrap (MF)	93.0	93.0	7.5	[3]
14	Switch/Outlet Gaskets (SF)	0.7	0.7	0.8	[1], [2]
	Switch/Outlet Gaskets (MF)	0.8	0.8	0.8	[1], [2]
15	Caulking, Per Dwelling (SF)	6.4	6.4	2.0	[1], [2]
	Caulking, Per Dwelling (MF)	3.0	3.0	1.0	[1], [2]
16	Other Weatherstripping (SF)	4.0	4.0	2.0	[1], [2]
	Other Weatherstripping (MF)	3.0	3.0	1.0	[1], [2]
17	<b>Electric Base Load Measures:</b>				
	a. Refrigerator Replacement (SF)	355			[1]
	a. Refrigerator Replacement (MF)	315			[1]
	a. Refrigerator (2nd Removed)	1077			[3]
	b. Electric Water Heater Repair	No Energy Savings			
	b. Electric Water Heater Replacement	129			[1]
	c. Microwave Oven (New)	273.3		28.8	[3]
	c. Microwave Oven (Replacement)	Calculation			[5]
	d. Thread-based Compact Fluorescent Lamps	Calculation			[5]
	e. Hard-Wired Compact Fluorescent Lamps	Calculation			[5]
<b>OPTIONAL MEASURES</b>					
1	Ceiling Fans(SF)		165.0		[3]
	Ceiling Fans (MF)		165.0		[3]
2	Evaporative Cooler Repair (SF)		177.6		[2]
	Evaporative Cooler Repair (MF)		177.6		[2]
3	Filter Replacement for A/C or Furnace, Filters Only (SF)		4.9	1.1	[2]
	Filter Replacement for A/C or Furnace, Filters Only (MF)		3.8	0.1	[2]
4	Filter Replacement for A/C or Furnace, Filters + Replacement Signal (SF)		4.9	1.1	[2]
	Filter Replacement for A/C or Furnace, Filters + Replacement Signal (MF)		3.8	0.1	[2]
5	Setback Thermostat, (SF)	330.0	330.0	60.0	[2]
	Setback Thermostat(MF)	170.1	170.1	23.0	[2]
6	<b>Other Optional Measures</b>				
a.	Floor Insulation (+36") Clearance	0.0	0.0	30.2	[1]
	Floor Insulation (-36") Clearance	0.0	0.0	30.2	[1]
b.	Electric Water Heater Timer (SF)	136.0	136.0		[3]
	Electric Water Heater Timer (MF)	102.0	102.0		[3]

**Utility Service Territory PG&E  
CEC Forecasting Climate Zones: 1 to 5**

DEPARTMENT OF COMMUNITY SERVICES AND DEVELOPMENT 2001 CALIFORNIA LIHEAP		CSD Energy Savings			Source
		Per Measure Electric Impact (kWh)		Per Measure Gas Impact (Therms)	
		SH	AC		
c.	Shadescreen (SF)		1.7		[1]
	Shadescreen (MF)		2.9		[1]
d.	Shutters (SF)			6.7	[1]
	Shutters (MF)			10.0	[1]
e.	Storm Window --Operable(Vinyl, Polycarb, Glass), Fixed (SF)	7.8	7.8	6.7	[1]
	Storm Window --Operable(Vinyl, Polycarb, Glass), Fixed (MF)			10.0	[1]
f.	Tinted Film (SF)		3.4	0.0	[1]
	Tinted Film (MF)		5.5	0.0	[1]
g.	Wood Fueled Space Heater(SF)	984.0		175.5	[3]
	Wood Fueled Space Heater(MF)	775.0		107.0	[3]

**Legend:**

SH - Space Heating  
AC - Central Air Conditioning  
SF - Single Family  
MF - Multi Family

[1] Joint Utility Low Income Energy Efficiency Program Costs and Bill Savings Standardization Report, March 5, 2001

[2] 2001 DEER Update Study

[3] RHA Estimate

[4] Residential Energy Survey Report, 1994

[5] Calculation using kWh difference between old and new unit

**Utility Service Territory SCE/SoCal Gas**  
**CEC Forecasting Climate Zones: 9, 10, 12 and 16**

DEPARTMENT OF COMMUNITY SERVICES AND DEVELOPMENT 2001 CALIFORNIA LIHEAP		CSD Energy Savings			Source
		Per Measure Electric Impact (kWh)		Per Measure Gas Impact (Therms)	
		SH	AC		
<b>WEATHERIZATION ACTIVITIES</b>					
1	Non-Blower Door Assessment (with attic)	No Energy Savings			
2	Non-Blower Door Assessment (without attic)	No Energy Savings			
3	Safety Check of Combustion Appliances (Pre-Test)	No Energy Savings			
4	Safety Check of Combustion Appliances (Post-Test)	No Energy Savings			
5	Blower Door Test	No Energy Savings			
6	Duct Leakage Pre-Test	No Energy Savings			
7	Duct Leakage Post-Test	No Energy Savings			
<b>MANDATORY MEASURES</b>					
1	Combustion Appliance Safety Hazard Repair/Replacement	No Energy Savings			
2	Glass Replacement(SF)	2.9	2.9	1.5	[1]
	Glass Replacement(MF)	0.8	0.8	0.5	[1]
3	Duct and Register Repair/Replacement (SF)	133.4	133.4	11.0	[1]
	Duct and Register Repair/Replacement (MF)	117.1	117.1	0.0	[1]
4	Minor Envelope Repair(SF)	67.9	32.5	7.2	[2]
	Minor Envelope Repair (MF)	66.5	25.5	0.7	[2]
5	Evap. Cooler/Air Conditioner Vent Cover (Inside)(SF)			2.6	[2]
	Evap. Cooler/Air Conditioner Vent Cover (Inside) (MF)			2.6	[2]
6	Attic Venting	No Energy Savings			
7	a. Ceiling Insulation R11 (SF)	271.7	129.9	18.9	[2]
	a. Ceiling Insulation R11 (MF)	266.1	102.0	18.9	[2]
	b. Kneewall Insulation R11	Included in Ceiling Insulation			
	c. Ceiling Insulation R19 (SF)	271.7	129.9	18.9	[2]
	c. Ceiling Insulation R19 (MF)	266.1	102.0	18.9	[2]
	d. Kneewall Insulation R19	Included in Ceiling Insulation			
	e. Ceiling Insulation R30 (SF)	271.7	129.9	18.9	[2]
	e. Ceiling Insulation R30 (MF)	266.1	102.0	18.9	[2]
	f. Ceiling Insulation R38 (SF)	271.7	129.9	18.9	[2]
	f. Ceiling Insulation R38 (MF)	266.1	102.0	18.9	[2]
8	Low-Flow Showerhead (MF)	185.7		9.7	[1]
	Low-Flow Showerhead (SF)	149.0		8.7	[1], [2]
9	Hot Water Faucet Restrictor(SF)	72.7		3.7	[1]
	Hot Water Faucet Restrictor(MF)	58.3		3.0	[1]
10	Door Weatherstripping (SF)	2.9	2.9	1.5	[1]
	Door Weatherstripping (MF)	2.9	2.9	0.6	[1], [2]
11	Water Heater Blanket (SF)	251.0		13.0	[1]
	Water Heater Blanket (MF)	202.0		12.0	[1]
12	Water Heater Pipe Wrap (SF)	53.0		3.3	[2]
	Water Heater Pipe Wrap (MF)	53.0		3.3	[2]

**Utility Service Territory SCE/SoCal Gas**  
**CEC Forecasting Climate Zones: 9, 10, 12 and 16**

DEPARTMENT OF COMMUNITY SERVICES AND DEVELOPMENT 2001 CALIFORNIA LIHEAP		CSD Energy Savings			Source
		Per Measure Electric Impact (kWh)		Per Measure Gas Impact (Therms)	
		SH	AC		
13	Duct Wrap (SF)	124.0	124.0	5.5	[3]
	Duct Wrap (MF)	93.0	93.0	4.1	[3]
14	Switch/Outlet Gaskets (SF)	1.0	0.8	0.8	[1], [2]
	Switch/Outlet Gaskets (MF)	1.1	1.1	0.8	[1], [2]
15	Caulking, Per Dwelling (SF)	5.8	5.8	1.5	[1], [2]
	Caulking, Per Dwelling (MF)	5.0	5.0	0.4	[1], [2]
16	Other Weatherstripping (SF)	3.1	3.1	2.0	[1], [2]
	Other Weatherstripping (MF)	2.9	2.9	0.6	[1], [2]
17	<b>Electric Base Load Measures:</b>				
	a. Refrigerator Replacement (SF)	355			[1]
	a. Refrigerator Replacement (MF)	315			[1]
	a. Refrigerator (2nd Removed)	1077			[3]
	b. Electric Water Heater Repair	No Energy Savings			
	b. Electric Water Heater Replacement	129			[1]
	c. Microwave Oven (New)	273.3		28.8	[3]
	c. Microwave Oven (Replacement)	kWh difference between old and new			[5]
	d. Thread-based Compact Fluorescent Lamps	kWh difference between old and new			[5]
	e. Hard-Wired Compact Fluorescent Lamps	kWh difference between old and new			[5]
<b>OPTIONAL MEASURES</b>					
1	Ceiling Fans(SF)		165.0		[3]
	Ceiling Fans (MF)		165.0		[3]
2	Evaporative Cooler Repair (SF)		177.6		[2]
	Evaporative Cooler Repair (MF)		177.6		[2]
3	Filter Replacement for A/C or Furnace, Filters Only (SF)		4.9	1.1	[2]
	Filter Replacement for A/C or Furnace, Filters Only (MF)		3.8	0.1	[2]
4	Filter Replacement for A/C or Furnace, Filters + Replacement Signal (SF)		4.9	1.1	[2]
	Filter Replacement for A/C or Furnace, Filters + Replacement Signal (MF)		3.8	0.1	[2]
5	Setback Thermostat, Per Dwelling (SF)	330.0	330.0	60.0	[2]
	Setback Thermostat, Per Dwelling (MF)	170.1	170.1	23.0	[2]
6	<b>Other Optional Measures</b>				
a.	Floor Insulation (+36") Clearance			36.7	[1]
	Floor Insulation (-36") Clearance			36.7	[1]
b.	Electric Water Heater Timer (SF)	136.0	136.0		[3]
	Electric Water Heater Timer (MF)	102.0	102.0		[3]
c.	Shadescreen (SF)		1.4		[1]
	Shadescreen (MF)		2.5		[1]
d.	Shutters (SF)				[1]
	Shutters (MF)				[1]

**Utility Service Territory SCE/SoCal Gas**  
**CEC Forecasting Climate Zones: 9, 10, 12 and 16**

DEPARTMENT OF COMMUNITY SERVICES AND DEVELOPMENT 2001 CALIFORNIA LIHEAP		CSD Energy Savings			Source
		Per Measure Electric Impact (kWh)		Per Measure Gas Impact (Therms)	
		SH	AC		
e.	Storm Window --Operable(Vinyl, Polycarb, Glass), Fixed (SF)				[1]
	Storm Window --Operable(Vinyl, Polycarb, Glass), Fixed (MF)				[1]
f.	Tinted Film (SF)		2.5		[1]
	Tinted Film (MF)		4.6		[1]
g.	Wood Fueled Space Heater(SF)	984.0		175.5	[3]
	Wood Fueled Space Heater(MF)	775.0		107.0	[3]

**Legend:**

SH - Space Heating  
AC - Central Air Conditioning  
SF - Single Family  
MF - Multi Family

[1] Joint Utility Low Income Energy Efficiency Program Costs and Bill Savings Standardization Report, March 5, 2001

[2] 2001 DEER Update Study

[3] RHA Estimate

[4] Residential Energy Survey Report, 1994

[5] Calculation using kWh difference between old and new unit



**Utility Service Territory SDG&E**  
**CEC Forecasting Climate Zones: 13**

DEPARTMENT OF COMMUNITY SERVICES AND DEVELOPMENT 2001 CALIFORNIA LIHEAP		CSD Energy Savings		Source
		Per Measure Electric Impact (kWh)	Per Measure Gas Impact (Therms)	
		SH	AC	
<b>WEATHERIZATION ACTIVITIES</b>				
1	Non-Blower Door Assessment (with attic)	No Energy Savings		
2	Non-Blower Door Assessment (without attic)	No Energy Savings		
3	Safety Check of Combustion Appliances (Pre-Test)	No Energy Savings		
4	Safety Check of Combustion Appliances (Post-Test)	No Energy Savings		
5	Blower Door Test	No Energy Savings		
6	Duct Leakage Pre-Test	No Energy Savings		
7	Duct Leakage Post-Test	No Energy Savings		
<b>MANDATORY MEASURES</b>				
1	Combustion Appliance Safety Hazard Repair/Replacement	No Energy Savings		
2	Glass Replacement(SF)		2.0	[1]
	Glass Replacement(MF)		0.5	[1]
3	Duct and Register Repair/Replacement (SF)	59.3	59.3	[1]
	Duct and Register Repair/Replacement (MF)	46.7	46.7	[1]
4	Minor Envelope Repair(SF)	67.9	32.5	[2]
	Minor Envelope Repair (MF)	66.5	25.5	[2]
5	Evap. Cooler/Air Conditioner Vent Cover (Inside)(SF)		2.6	[2]
	Evap. Cooler/Air Conditioner Vent Cover (Inside) (MF)		2.6	[2]
6	Attic Venting	No Energy Savings		
7	a. Ceiling Insulation R11 (SF)	271.7	129.9	[2]
	a. Ceiling Insulation R11 (MF)	266.1	102.0	[2]
	b. Kneewall Insulation R11	Included in Ceiling Insulation		
	c. Ceiling Insulation R19 (SF)	271.7	129.9	[2]
	c. Ceiling Insulation R19 (MF)	266.1	102.0	[2]
	d. Kneewall Insulation R19	Included in Ceiling Insulation		
	e. Ceiling Insulation R30 (SF)	271.7	129.9	[2]
	e. Ceiling Insulation R30 (MF)	266.1	102.0	[2]
	f. Ceiling Insulation R38 (SF)	271.7	129.9	[2]
	f. Ceiling Insulation R38 (MF)	266.1	102.0	[2]
8	Low-Flow Showerhead (MF)	185.7	9.7	[1]
	Low-Flow Showerhead (SF)	149.0	8.7	[1], [2]
9	Hot Water Faucet Restrictor(SF)	72.7	3.7	[1]
	Hot Water Faucet Restrictor(MF)	58.3	3.0	[1]
10	Door Weatherstripping (SF)		2.0	[1]
	Door Weatherstripping (MF)	2.5	2.5	[1], [2]
11	Water Heater Blanket (SF)	251.0		[1]
	Water Heater Blanket (MF)	202.0		[1]
12	Water Heater Pipe Wrap (SF)	53.0		[2]
	Water Heater Pipe Wrap (MF)	53.0		[2]
13	Duct Wrap (SF)	124.0	124.0	[3]
	Duct Wrap (MF)	93.0	93.0	[3]

**Utility Service Territory SDG&E**  
**CEC Forecasting Climate Zones: 13**

DEPARTMENT OF COMMUNITY SERVICES AND DEVELOPMENT 2001 CALIFORNIA LIHEAP		CSD Energy Savings			Source
		Per Measure Electric Impact (kWh)	Per Measure Gas Impact (Therms)		
		SH	AC		
14	Switch/Outlet Gaskets (SF)		0.8	0.8	[1], [2]
	Switch/Outlet Gaskets (MF)			0.8	[1], [2]
15	Caulking, Per Dwelling (SF)	5.1	5.1	1.7	[1], [2]
	Caulking, Per Dwelling (MF)	4.6	4.6	0.4	[1], [2]
16	Other Weatherstripping (SF)	2.7	2.7	2.0	[1], [2]
	Other Weatherstripping (MF)	2.5	2.5	0.6	[1], [2]
17	Electric Base Load Measures:				
	a. Refrigerator Replacement (SF)	355			[1]
	a. Refrigerator Replacement (MF)	315			[1]
	a. Refrigerator (2nd Removed)	1077			[3]
	b. Electric Water Heater Repair	No Energy Savings			
	b. Electric Water Heater Replacement	129			[1]
	c. Microwave Oven (New)	273.3	28.8		[3]
	c. Microwave Oven (Replacement)	kWh difference between old and new			[5]
	d. Thread-based Compact Fluorescent Lamps	kWh difference between old and new			[5]
e. Hard-Wired Compact Fluorescent Lamps	kWh difference between old and new			[5]	
OPTIONAL MEASURES					
1	Ceiling Fans(SF)		165.0		[3]
	Ceiling Fans (MF)		165.0		[3]
2	Evaporative Cooler Repair (SF)		177.6		[2]
	Evaporative Cooler Repair (MF)		177.6		[2]
3	Filter Replacement for A/C or Furnace, Filters Only (SF)		4.9	1.1	[2]
	Filter Replacement for A/C or Furnace, Filters Only (MF)		3.8	0.1	[2]
4	Filter Replacement for A/C or Furnace, Filters + Replacement Signal (SF)		4.9	1.1	[2]
	Filter Replacement for A/C or Furnace, Filters + Replacement Signal (MF)		3.8	0.1	[2]
5	Setback Thermostat, Per Dwelling (SF)	330.0	330.0	60.0	[2]
	Setback Thermostat, Per Dwelling (MF)	170.1	170.1	23.0	[2]
6	Other Optional Measures				
a.	Floor Insulation (+36") Clearance			29.6	[1]
	Floor Insulation (-36") Clearance			29.6	[1]
b.	Electric Water Heater Timer (SF)	136.0	136.0		[3]
	Electric Water Heater Timer (MF)	102.0	102.0		[3]
c.	Shadescreen (SF)		1.4		[1]
	Shadescreen (MF)		2.5		[1]
d.	Shutters (SF)				[1]
	Shutters (MF)				[1]

**Utility Service Territory SDG&E**  
**CEC Forecasting Climate Zones: 13**

DEPARTMENT OF COMMUNITY SERVICES AND DEVELOPMENT 2001 CALIFORNIA LIHEAP		CSD Energy Savings			Source
		Per Measure Electric Impact (kWh)		Per Measure Gas Impact (Therms)	
		SH	AC		
e.	Storm Window --Operable(Vinyl, Polycarb, Glass), Fixed (SF)				[1]
	Storm Window --Operable(Vinyl, Polycarb, Glass), Fixed (MF)				[1]
f.	Tinted Film (SF)		2.5		[1]
	Tinted Film (MF)		4.6		[1]
g.	Wood Fueled Space Heater(SF)	984.0		175.5	[3]
	Wood Fueled Space Heater(MF)	775.0		107.0	[3]

**Legend:**

SH - Space Heating  
AC - Central Air Conditioning  
SF - Single Family  
MF - Multi Family

[1] Joint Utility Low Income Energy Efficiency Program Costs and Bill Savings Standardization Report, March 5, 2001

[2] 2001 DEER Update Study

[3] RHA Estimate

[4] Residential Energy Survey Report, 1994

[5] Calculation using kWh difference between old and new unit

## Appendix C




# Number of Homes Weatherized and Estimated Yearly Energy Savings per CAL LIHEAP Service Provider

Appendix C

#	CAL LIHEAP Service Provider	Number of Dwellings per Month													
		Jun-01	Jul-01	Aug-01	Sep-01	Oct-01	Nov-01	Dec-01	Jan-02	Feb-02	Mar-02	Apr-02	May-02	Jun-02	Jul-02
1	Amador-Tuolumne Community Action Agency	0	14	37	48	49	2	0	0	0	0	0	0	0	4
2	California Human Development Corp.	0	16	64	4	8	64	42	51		0		11		9
3	Campeños Unidos, Inc.		95	91	101	107	0	0	0	73	103	48	41	104	55
4	Central Valley Opportunity Center, Inc.	9	36	47	42	33	16	35	27	0	0	35	18		0
5	City of Berkeley	12	25	27	22	15	0		0	0	0	0	0	0	2
6	Colusa-Glenn-Trinity Community Action Agency	12	12	14	8	14	6	5	0	0	2	0	0	0	0
7	Community Action Agency of Butte County, Inc.	3	63	46	12	2	20	11	19	22	6	7	4	2	1
8	Community Action Agency of San Mateo County, Inc.	0	44	102	45	63	45	82	15	16	18	6	0	0	0
9	Community Action Commission of Santa Barbara County	0	0	23	33	63	69	21	35	12	12	5	0	0	5
10	Community Enhancement Services	96	317	664	248	475	411	6	81	0	0	126	3	0	2
11	Community Resource Project, Inc.	92	236	291	193	235	262	127	119	228	172	105	110	121	37
12	Community Services and Employment Training, Inc.	13	138	219	30	173	97	0	0	0	31	29	25	22	17
13	Contra Costa County Community Services Department		36	36	72	38	0	0	0	0	0	0	0		
14	County of Riverside, Department of Community Action	0	0	141	210	114	107	79	83	66	50	23	2		1
15	Del Norte Senior Center	0	2	10	8	7	0	0	0	0	0	11	8	0	0
16	Economic and Social Opportunities, Inc.	0	0	99	135	133	15	18	11	50	34	50	17	28	30
17	Economic Opportunity Commission of San Luis Obispo, Inc.			32	32	59	44	0	0	0	0	0	0		
18	Economic Opportunity Council of San Francisco	84	198	156	73	174	10	10	10	24	0	0	0	0	0
19	El Dorado County Department of Community Services	29	40	45	56	21	0	0	0	0	0	0	0	0	0
20	Energy Services, Community Action Board of Santa Cruz County, Inc.	98	108	105	102	136		0	0			0	0		
21	Fresno County Economic Opportunities Commission	0	0	609	0	0	0	680				0		0	
22	Great Northern Corporation	3	10	24	55		11	0	0	0	0	0	0	0	
23	Inyo Mono Advocates for Community Action, Inc.	0	0	0	0	0	0	0	0	0	0	0	0	0	0
24	Kern County Economic Opportunity Corp.	0	42	140	38	99	0	0	0	0	0	145	56	0	87
25	Kings Community Action Organization, Inc.	0	9	64	0	54	23	0	0	0	0	0	0	0	0
26	Madera County Community Action Committee, Inc.		6	30	16	9	14	6	0	0	0	0	0	0	0
27	Maravilla Foundation	130	424	1755	99	65	65	65	0	0	10	262	247	220	2
28	Mariposa County Human Services Department	0	0	6	0	0	0	1	0	4		1	0	0	0
29	Merced County Community Action Agency	10	13	30	28	27	22	20	37	22	0	0	0	0	
30	Metropolitan Area Advisory Committee	59	108	99	109	104	78	114		0	0	0	0	0	
31	Nevada County Department of Housing and Community Services	0	11	43	14	3	2	0	2	52	1	39	0	0	0
32	North Coast Energy Services	36	62	235	11	11	28	0	151	44	70	20	49	0	0
33	Orange County Community Development Council, Inc.	0	0	366	732	200	520	200	0	175	0	0	0		
34	Pacific Asian Consortium in Employment	0	204	1217	167	505	170	194	91	134	5	99	74	73	5
35	Plumas County Community Development Commission	1	12	30	16	17	16	11	0	0	0	0	0	0	
36	Project Go, Inc.	6	16	61	20	40	18	19	17	18	16		6	6	3
37	Redwood Community Action Agency	25	25	54	12	17	7	10	43	28	0	0	0	0	7
38	San Benito County Dept. of Comm. Serv. & Workforce Dev.	0	0	0	0	12	0	0	0	0	0	0	0	0	0
39	San Bernardino County Community Services Department	22	198	247	62	0	24	0	0	14	26	72	10	0	34
40	San Joaquin County Dept. of Aging, Children's and Comm. Serv.	0	76	59	0	86	0	0	37		71	86	75	78	0
41	Self-Help Home Improvement Project, Inc.	45	40	13	19	30	24	2	1	2		0	0		
42	Spectrum Community Services, Inc.	0	108	84	135	175	149	128	20	3	174	210	134	2	8
43	TEACH, Inc.	0	0	18	0		25	0	0	0	0	0	0	0	0
44	Ventura County Commission on Human Concerns	7	49	110	98	106	94			0	0	0	0	0	
45	Veterans in Community Services, Inc.	47	154	224	276	128	221	0	0	0	0	0	0	0	0
46	Northern California Indian Development Council (NCIDC)														
47	Karuk	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Reports Analyzed		42	45	46	46	44	45	44	43	42	42	44	45	38	35
Total Number of Dwellings		839	2,947	7,767	3,381	3,607	2,679	1,886	850	987	801	1,379	890	656	309

Legend:


 Wx Activity Report has not been submitted by Agency

# Number of Homes Weatherized and Estimated Yearly Energy Savings per CAL LIHEAP Service Provider

Appendix C

#	CAL LIHEAP Service Provider						Total Number of Dwellings	Estimated Yearly Energy Savings		
		Aug-02	Sep-02	Oct-02	Nov-02	Dec-02		Measure Qty	kWh	Therms
1	Amador-Tuolumne Community Action Agency	0	0	0	0	2	156	1,317	138,773	3,160
2	California Human Development Corp.	28					297	3,482	145,244	7,710
3	Campesinos Unidos, Inc.	32	75		0		925	7,828	437,249	8,602
4	Central Valley Opportunity Center, Inc.	0	0	0	0		298	3,693	247,419	14,400
5	City of Berkeley	1	0	0	0		104	1,303	54,168	4,590
6	Colusa-Glenn-Trinity Community Action Agency		0	0			73	642	37,067	1,839
7	Community Action Agency of Butte County, Inc.	2					220	2,902	252,240	7,501
8	Community Action Agency of San Mateo County, Inc.			0	0		436	2,765	220,765	9,372
9	Community Action Commission of Santa Barbara County	5		1	0	0	284	5,100	123,257	24,507
10	Community Enhancement Services		0	44	0		2,473	2,512	678,357	617
11	Community Resource Project, Inc.	7	13	16			2,364	14,166	1,236,144	26,683
12	Community Services and Employment Training, Inc.	20	13				827	1,437	247,525	1,411
13	Contra Costa County Community Services Department	0			0		182	1,956	14,075	8,302
14	County of Riverside, Department of Community Action	56		108	119	167	1,326	8,384	972,851	2,374
15	Del Norte Senior Center	2	0	0	0	0	48	685	70,934	1,475
16	Economic and Social Opportunities, Inc.	5		0			625	2,663	280,428	3,444
17	Economic Opportunity Commission of San Luis Obispo, Inc.		0	0	0		167	1,987	138,629	8,542
18	Economic Opportunity Council of San Francisco	27	0	0	23	14	803	2,567	256,662	3,985
19	El Dorado County Department of Community Services	0	0	0	0		191	3,094	106,030	6,684
20	Energy Services, Community Action Board of Santa Cruz County, Inc.						549	5,403	698,884	25,019
21	Fresno County Economic Opportunities Commission	0			0		1,289	7,609	306,755	27,446
22	Great Northern Corporation	0	0	0	0		103	1,303	46,729	4,031
23	Inyo Mono Advocates for Community Action, Inc.		0	0	0		0	0	0	0
24	Kern County Economic Opportunity Corp.	31			0		638	9,091	437,629	31,596
25	Kings Community Action Organization, Inc.	0	0	0	0		150	792	71,864	2,481
26	Madera County Community Action Committee, Inc.	0	0	0			81	1,129	50,853	2,884
27	Maravilla Foundation	18	37	17	0		3,416	20,419	1,384,353	17,408
28	Mariposa County Human Services Department	5	0	0	0		17	284	14,276	2,572
29	Merced County Community Action Agency	0	0	0	0		209	3,389	161,061	6,089
30	Metropolitan Area Advisory Committee	1	1				673	7,080	222,565	16,845
31	Nevada County Department of Housing and Community Services	0	0	0	7	5	179	1,366	101,434	5,559
32	North Coast Energy Services	0	0				717	5,014	400,642	10,518
33	Orange County Community Development Council, Inc.	0	0	0	0		2,193	5,466	686,363	6,817
34	Pacific Asian Consortium in Employment	17	18	5	11	31	3,020	13,225	786,486	41,745
35	Plumas County Community Development Commission	0	0	0	0		103	642	38,311	1,082
36	Project Go, Inc.	0	1				247	1,841	117,233	3,277
37	Redwood Community Action Agency	0	0	0	0		228	1,545	19,447	8,298
38	San Benito County Dept. of Comm. Serv. & Workforce Dev.	0		0	0		12	76	6,102	202
39	San Bernardino County Community Services Department	12	47		91		859	9,350	362,567	54,552
40	San Joaquin County Dept. of Aging, Children's and Comm. Serv.	0	74	46	0	14	702	9,399	318,426	43,286
41	Self-Help Home Improvement Project, Inc.		0	0			176	1,936	126,525	1,941
42	Spectrum Community Services, Inc.	8	18	0	0		1,356	7,889	487,116	8,517
43	TEACH, Inc.	0	0	0	0		43	264	14,074	814
44	Ventura County Commission on Human Concerns				0		464	1,032	134,863	10,597
45	Veterans in Community Services, Inc.	0		0			1,050	9,218	384,089	26,369
46	Northern California Indian Development Council (NCIDC)	0	0	0	0		0	0	0	0
47	Karuk	0		0			0	0	0	0
Total Reports Analyzed		39	33	34	33	8	748	Total Savings	13,036,464	505,139
Total Number of Dwellings		277	297	237	251	233	30,273			

Legend:

 Wx Activity Report has not been submitted by Agency